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ST. NICHOLAS *for* JUNE



ALL the readers of ST. NICHOLAS—but girls especially, of course—will be delighted to hear that the June number is to contain an article

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the famous Scandinavian player, the only woman who has ever held all of the singles championships in the United States at one time.

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MISS MOLLA BJURSTEDT
Finishing a forehand drive

But boys and girls alike—and grown-ups, too—will find Miss Bjurstedt's article seriously worth reading. It is as good as a whole course of instruction in the mysteries of the game. What kind of racquet to buy and how to hold it, how to learn the various drives and the two kinds of service, how to hit the ball, what is meant by style, and why the only real game is a sporting game—do you think, even if you happen to be a boy, that you can afford to miss hearing such questions answered by one of the most famous players in the world?

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"ROUND THE TERRACE THEN WE CIRCLED, AND WE CAPERED AND WE BOWED."

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The Dance In The Garden By Clara Platt Meadowcroft

In the great hall of the castle, fiddlers scraped their bows in glee:
All the court was dancing; no one thought of Griflet or of me.
Griflet says folks want a jester only when they're fain to weep,
And a child like me 's expected just to go to bed and sleep.

So we peeped and listened—*wishing*; and the music grew more gay.
On a sudden Griflet pulled me: "Little princeling, come away!
There 's a dance out in the garden where we need not sit and gaze,
Those are only mortals yonder; *we* may dance with elves and fays."

Oh, the garden! every leafy bough and blossom wore a crown
And a robe of moonlight gleaming like my mother's satin gown.
"See the lovely white syringa!" "My Lord Beaumain, if you please,
Can't you see it is a dryad dancing with the Evening Breeze?"

Round the terrace then we circled, and we capered and we bowed;
Overhead the little Lady Moon danced in and out a cloud;
From the shadows the white peacock stared, while Griflet hummed a tune:
"Make your bow to Monsieur Peacock! Make your bow to Lady Moon!"

Then he whistled softly, sweetly, and with stately, mincing grace,
Like a haughty prince, the peacock spread his fan and took his place.
From the shallow marble basin rose a shimmering cloud of spray:
"See! the naiad of the fountain coming out to join our play!"

"Only one is missing. Listen! I will call her: Philomel!
Philomel!" He whistled softly. It was like a magic spell.
Low and lovely came the answer deep within the garden close,
And the nightingale made music while we danced from rose to rose.

Every little flower was nodding; little breezes frisked and flew.
"T is a fairy party, Griflet; I wish we were fairies, too!
Any one can tell we 're mortals, playing at a fairy game."
Suddenly the great doors opened wide and out the dancers came.

"Oh!" and "oh!" they cried together; "What a wondrous night!" they said;
"Who would choose a stupid ball-room with the garden here instead?
And the music and the moonlight have made magic on the lawn;
Yonder surely is a satyr dancing with a little faun!"

MOLLY FROM OAHU

BY ELIZABETH SEARS

ANN BALLARD stood on the deck of the great trans-Pacific liner *Coltonia*, and looked down upon the motley crowd on the wharf below her. In spite of the discontent that filled her mind, the girl could not help being interested as she took her last look on Honolulu. Already the gang-planks were up, and the Royal Hawaiian Band, standing in the midst of the crowd on the dock, were sending forth the sweetly mournful notes of "Aloha."

The brisk shower of five minutes before had cleared away with tropical suddenness, and the sun shone down hotly on the animated scene. Groups of native Kanakas in their highly colored, stiffly starched *holokus* wept and laughed by turns, as quick to change as the uncertain weather. Pretty *lei* girls, with their garlands of brightly colored and heavily scented flowers which, by the charming native custom, are hung on the shoulders of departing friends, pushed their way to the edge of the wharf, carrying their long bands of flowers over their arms carelessly, now that all the passengers were on board and sales for the day ended.

Chinese, Japanese, Filipinos, and Portuguese added gay hues to the throng, contrasting sharply with the dull khaki regimentals of the many American officers and soldiers who were scattered through the crowd.

Just below Ann, in a dazzle of smart white gowns and uniforms, stood Mrs. Whitman and her daughters chatting to a group of officers. Ann's eyes filled with angry tears to think that they should be staying with all that was interesting and fascinating here, while she must go. At

that moment she felt impatient with the delay in starting. The weight of the flower-garlands with which her friends had loaded her shoulders seemed almost unbearable in the hot sun, and she turned away almost petulantly from her father, who stood at the rail beside her.

A passing stewardess was handing out rolls of ribbon-confetti, and, following the example of those around her, Ann threw some to her friends on the wharf. In a moment the great liner seemed fastened to the dock with a thousand tiny streamers of red and blue and pink and yellow and green.

The crowd below responded gaily and surged forward for last greetings as the great boat pulled away so slowly that those on her decks felt no motion. Suddenly, every one began to wave, although the steamer had moved but a few feet. Handkerchiefs, hats, flowers fluttered in the bright sunlight.

Ann, catching the spirit of excitement, tore a *lei* of violets from her neck and tossed it to Dorothy Whitman, who caught it with a smile and put it on. For the next few moments garlands of flowers flew through the air. Roses, violets, hydrangeas, Bougainvillea dropped to the wharf below. The crowd shouted last remarks, the notes of the band swelled above the din; the slender strips of colored paper stretched and broke; and the great liner turned her nose out of the harbor toward the sea.

Ann's visit to Honolulu and Oahu was a thing of the past.

When her father had suggested that she should spend her summer going to the Islands with him,

Ann had been only mildly interested. She liked to travel with her father, but the Hawaiian Islands were just vague spots in an almost forgotten geography, as far as she was concerned.

Mr. Ballard had business with the great sugar-plantations of Oahu which demanded that he should make the trip, and he always planned to be with Ann during her vacations. Then Dorothy Whitman had said that she and her mother and sister were going out after they had been to the fair in San Francisco, and she had enthused so on the subject that Ann had decided that she was very fortunate to be going, too. But she could not guess how reluctant she would be to leave.

For, while her father was away at the plantations and on trips to the other islands, Ann had stayed with the Whitmans, and she had enjoyed every moment. She loved the great mountains, covered with strange tropical trees and shrubs, rising straight out of the sapphire-blue sea. She loved the warm, languid days, and the gorgeous moonlight nights, when she and her friends danced out of doors and took a dip in the ocean before going to sleep.

And now to think that the Whitmans would still be living in the sunlight of Oahu and doing all these delightful things, while she would be shut up in a school-room in New York and probably surrounded by snow!

She had felt so sure that her father would let her stay, when the Whitmans had decided to spend the winter, that she had not made any reservations for herself on the *Coltonia* as her father had directed. And so, when Mr. Ballard had come back the day before the ship sailed, and had insisted that she was to return with him, she had to take what accommodations she could get, and the result was a small inside room which she had to share with a room-mate.

Ann had never traveled that way, and the prospect did not add to her good humor. But for once her father had been firm. He was sure that she would always regret it if she did not finish with her class at school.

As Ann went below decks to her room, she was

in a very bad mood for a usually sweet-tempered girl. She had been cross to her father and she knew that she had hurt his feelings, which made her unhappy, for Ann loved her father, who was her only relative, better than any one else in the



"SEATED ON THE EDGE OF HER UPPER BERTH, ANN WATCHED THE OTHER GIRL." (SEE NEXT PAGE.)

world, and she appreciated all that he did for her.

So now, as she looked through the maze of passageways for her own room, Ann decided that she would get her things in order and brace up before luncheon. She found the right number at last and opened the door. There stood a strange girl in black, bending over a steamer-trunk. Ann



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THE HARBOR

drew back with a word of apology. She had forgotten the room-mate—another grievance!

But Molly Upton, as the girl in black introduced herself, had such a pleasant, sun-browned face and bright, interested eyes that Ann promptly made up her mind to stay and talk for a while. Before they were out of the bay Ann found herself telling her troubles to an unexpectedly sympathetic listener.

Seated on the edge of her upper berth, her feet swinging, and feeling better for her burst of confidence, Ann lazily watched the other girl busy with her belongings.

"I hate to miss seeing the harbor for the last time," Molly said wistfully as she deftly unpacked. "But I don't dare to wait until we are at sea to get out the things I want."

"Are you such a bad sailor?" Ann asked apprehensively.

"I really don't know," Molly replied frankly. "I was so small when I came out to Oahu that I can't remember."

And then it came out that Molly's father, who had been a bookkeeper at one of the big sugar plantations, had died a few months before and left Molly alone. She was now going to a married brother, who had a farm in the States. As she had not seen him since she was a small child and had never met his wife, she was not very happy in the prospect.

"I wish I had your chance to go to school," the girl finished longingly. "You see, I wanted to be a teacher; but I have not finished school, and I'm afraid that I never can, now, for my brother is

poor, and I shall have to help at home to earn my way."

Ann sat very still while Molly was talking. She gradually felt a good deal ashamed that she had poured out her grievances to a girl who had such problems of her own. In fact, her own troubles seemed to dwindle as Molly talked and unpacked garments which, to Ann, were painfully plain.

There seemed very little to say when Molly had finished her story; but Ann wanted to do something to show her interest, so she offered to take Molly's ticket to her father and ask him to get the girl a seat at the same table with them.

Mr. Ballard was only too glad to do anything he could for the young girl traveling alone, whose story Ann poured into his sympathetic ears. He had not made any comments on Ann's behavior, but he had noticed, of course, how unhappy she had been at leaving Honolulu, and he felt very much relieved when she came to him cheerfully with her errand.

Fortunately, Molly turned out to be an excellent sailor, and the two girls became very good friends in the bright, clear days that followed. They walked miles around the decks, played shuffle-board together, and lay in their steamer-chairs side by side for hours at a time. Molly, who, since her coming, had never been off her island, was eager to learn of ship's ways, and was never tired of hearing tales of Ann's life in the city. Ann showed all her pretty clothes and dainty traveling-things to her room-mate, and Molly admired everything ardently.



OF HONOLULU.

The result was that Ann, quite unconsciously, patronized her new friend a little. Her attitude toward her was kindly, but it was a bit condescending. Molly knew so little about the things that made Ann's life that it never occurred to Ann that she might know about anything else, and after that first day's talk Molly rarely mentioned her own affairs.

And so four days of the trip passed, and they began to feel that they were nearing San Francisco. The voyage would be over in a couple of days, and both girls were sorry. Ann could not get up a bit of enthusiasm about going back to school,—although she had not said so since that first day out,—and Molly dreaded the end of her journey and the beginning of her new life.

The two girls, each busy with her own thoughts, were unusually silent as they walked the deck before dinner and finally paused to lean on the rail and watch the flaming crimson sunset. A few clouds hung low in the west; the rest of the sky was as clear as the ocean, which stretched calm and unruffled as far as the darkening horizon. It was so peaceful and quiet that they hated to leave when the bugle announced dinner. But their good, healthy sea-appetites demanded immediate attention.

Much to their surprise, when they came back on deck, they found that the weather had changed, and that they had run into a fine, drizzling rain. Stewards were busy everywhere getting up awnings, but, in spite of their haste, the deck was spoiled for the usual evening dancing.

Ann and Molly went up to the hurricane-deck

where the Hawaiian orchestra, their coat collars turned up about their ears, were playing with what enthusiasm they could muster. The girls curled up in their steamer-chairs, in the lee of a big life-boat, and pulled their rugs snugly about them. But it was chilly and damp, and no one seemed to feel very cheerful. The tropics were now surely left behind.

Suddenly the fog-horn boomed out its dreary warning.

"Oh dear!" sighed Ann. "I hope that that thing will not be going all night."

The hour was still early when the two girls decided to go below to bed. The ship was running through a heavy fog, now, and it was poor fun on deck. Ann was soon asleep, but Molly was not used enough to ship's ways to take the fog-horn so calmly. It seemed to her a dreadful sound, and she wondered how Ann could sleep.

Then she began to think of the end of her journey and to speculate about it; and after that, the harder she tried to go to sleep the more actively her mind worked. Hour after hour passed. It seemed as if she had never been so wide awake.

Suddenly, Molly sat upright in her berth. A curious, slow quiver had seemed to run from bow to stern of the boat. It was not like anything she had ever felt before—but it was terrifying. Very still and tense she sat and waited, but nothing further happened. She wondered if, after all, she had been asleep. Ann had not moved. So she forced herself to lie down again, and was settling herself among her pillows when, without

warning, the throb of the engines and the roar of the fog-horn stopped! The silence was much more startling than any noise could have been. It seemed as if the great ship had ceased to live in that moment.

"I don't know," Molly answered, and her voice, though calm, was a little husky. "But I think we'd better get up and dress. Where's that electric torch of yours? I can't turn on the lights."



"ONE END OF THE BOAT PITCHED DOWNWARD." (SEE NEXT PAGE.)

With a hand that trembled a little, Molly reached for the light. Twice she snapped the switch in vain. Something had happened to the electricity!

Ann stirred in the berth above her. "What's the matter?" she asked sleepily.

Ann came over the edge of her berth instantly. She was trembling with fright and chill. Neither girl could see a thing—the room was absolutely dark, and damp with the fog which came from their one small, grated port that gave upon a deck.

As Ann fumbled among her things, the boat rolled sidewise with appalling slowness, so that her steamer-trunk came sliding out from under the berth.

"Let's get out of here!" Ann cried, grabbing for a coat. "Never mind the light—" and she stumbled in the dark toward the door.

Molly knelt on the floor and groped for Ann's bag. She thought that she remembered seeing the light in it the day before. Close beside her Ann struggled with the door.

"Molly!" she gasped. "Did you lock this?"

"Why no," answered Molly. "You told me never to lock a door on board ship—ah, here's the light!"

Never had anything seemed so wonderful as that tiny flare. By its feeble light Molly could see Ann's white, stricken face turned toward her. "What—" she began, voicing the fear that she read there.

"The door—" Ann whispered with dry lips. "I'm afraid—it's jammed!"

Molly laid the light on a berth, and both girls, without a word, pulled with all their strength on the resisting door. It would not give in the slightest degree. The room stayed at its fearful, sidewise slant, and everything was still—horribly still. They did not even hear steps on the deck above them.

Terrible thoughts entered the girls' minds as they stood there shivering and helpless. Ann began to cry hysterically. "We shall be drowned here like rats!" she sobbed.

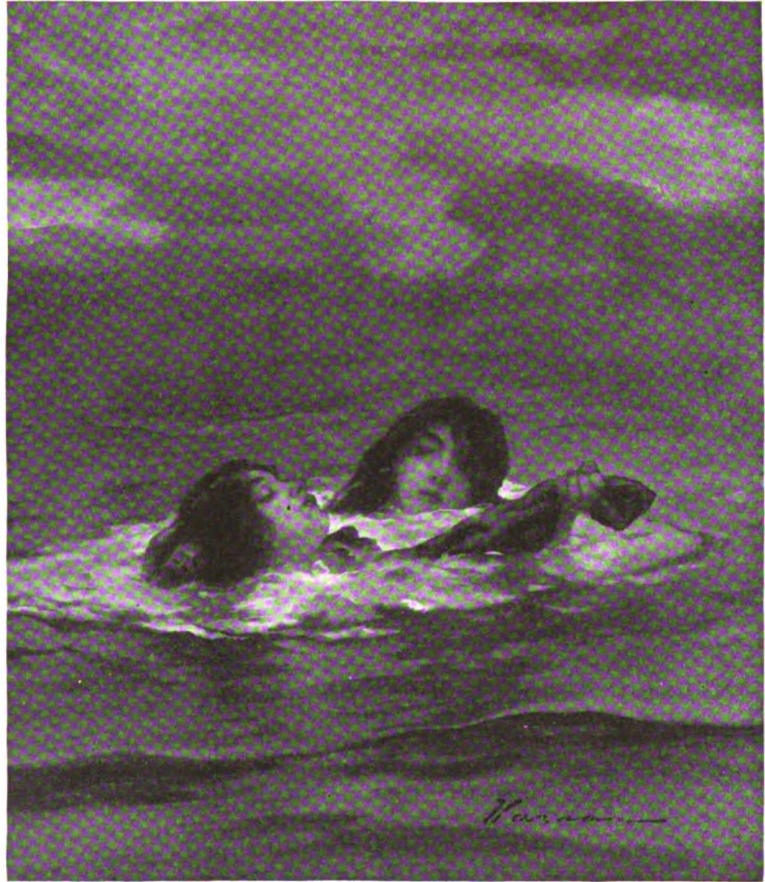
"No, we will not," Molly answered, with a sureness which she did not feel. "Your father will get here somehow—that door will have to be opened from the other side—we must get dressed."

Ann braced herself before Molly's calmness. The shy little island-girl had suddenly become the leader. The moments passed like hours, while with clumsy fingers the girls hurried into their clothes. What had happened? Were they cut off from help? Could Mr. Ballard get to them?

His shout from the passageway sent them flying to the door, calling out their predicament.

With a couple of stewards to help, the door finally gave way.

Closely and silently the girls clung to him and went with him up the strangely sloping passageways to the upper deck. Here a few lanterns and hand-lights showed the passengers huddled in silent groups, clad in the first clothes that had come to hand and waiting patiently to be told



"MOLLY QUICKLY GOT ANN OUT OF HER COAT." (SEE NEXT PAGE.)

what to do by officers who were directing the loading of the life-boats.

Molly had a dazed feeling that it was not at all as she would expect such a scene to be. A few women were sobbing softly, but there was little noise and no confusion. In a moment she and Ann were being put into a life-boat, side by side, by Ann's father, who leaned over and kissed his daughter and then was swallowed by the fog as their boat slipped out and down.

The night was so black that they could not see the water below them, but it seemed a fearfully long way off. Then, suddenly, something gave way! One end of the boat pitched downward

while the other stayed still—and, almost before they knew what had happened, both girls were dropped into the sea.

Ann clung to Molly. She forgot where she was or why she clung. Fear overcame her utterly. She heard Molly's voice in her ear pleading with her to let go—that she would drown them both; but the words had no meaning—she was beyond the power of reason.

Down, down they went into the black, cold water. Molly's strong arms, which had pushed their way through miles of the Pacific ever since she was a child, were helpless now in the stranglehold of her friend. In vain she strained; in vain she pulled. The heavy coats which both girls wore helped to drag them down.

Molly held her breath from long practice—if she could only get one arm free! Then, suddenly, Ann's arms dropped from their mad embrace as if by magic—the girl had fainted.

With one hand Molly caught her friend as she slipped from her, and instantly slid out of her coat. The next moment she was breathing on the surface. Molly was not afraid now. She had not played in the water for hours at a time for nothing.

Quickly she got Ann out of her coat, and then laid the unconscious girl across her feet for a few moments while she swam on her back and tried to look around her. But although the water was unusually calm, she could not see the ship or any of the boats. A blanket of fog had closed down upon her.

For some time she floated, and swam, and managed very well—supporting her unconscious companion first in one way and then in another, but even such strength and endurance as hers could not hold out for very long with such a burden. It was soon hard work to keep her friend's head above water. Molly tried every trick that she had learned from a race famous the world over for its swimming. But after a while she realized that her strength was failing.

Most of all she struggled to keep her calmness. Once that was gone, she knew that she was lost. It never occurred to her to abandon Ann, although without her Molly could have kept herself afloat for hours. Her lungs seemed ready to burst with the effort she was making, and her mind began to skip moments and to seem to stand outside of her, as if it were some one else working there in the water.

And then she heard a sound—it was the *chug-chug* of a launch so close beside her that it seemed as if some one must see her even through the fog.

She made a tremendous effort to call aloud, but only a faint sound came from her lips. She could see nothing, but she heard a man's voice say: "Stop that engine—now—a few feet to port—" And she knew no more.

When Molly awoke again, it was in a cabin very like the one that she and Ann had occupied on the ill-fated *Coltonia*. There was Ann on the couch opposite her, lying quite still, but with her wide-open eyes fixed upon her eagerly.

"Oh, Molly!" she cried. "I had begun to think that you were never going to wake up. How do you feel?"

"I did n't dream it then," answered Molly, stretching her aching limbs carefully. "Goodness, how stiff I am!"

At this moment a stewardess and a ship's doctor appeared in the doorway, and at once Molly found herself swallowing hot broth. "What happened?" she asked the doctor between sips.

"Must n't talk," he answered authoritatively. "You're on the *Moreland* now. The *Coltonia* struck a derelict in the fog; but we heard her S. O. S. in time, and every one was saved—even those dropped out of the life-boat with you. Now go to sleep."

Molly was very comfortably sleepy, but she looked to Ann for more information. "How are you, Ann?" she asked.

"Oh, I'm all right—thanks to you," Ann answered. "I don't remember a thing after we got in the water; but you kept me from drowning for almost half an hour, I think Father said. I don't know how you did it. Father says it's wonderful—he's just waiting for you to wake up to tell you what he thinks of you. He's grateful beyond words,—I'm all he has, you know,—and he wants to do something for you. Molly—if you'll only go to school with me, it would be perfect. As for me,—well, you saved my life, Molly,—such as it is. I've been lying here all day, looking at you, and thinking how fine you are, and how quiet and modest—and I'm just ashamed of the way I—"

Here Ann stopped suddenly—for Molly was fast asleep!

"Oh, dear!" Ann whispered to herself as she leaned back against her pillows. "All that to say again to-morrow! But maybe I can do it better next time. Anyway, before she wakes up I can think of any amount of nice things that we are going to do together. Maybe we'll even go back to Oahu some day—yes, there's plenty for me to think of while she sleeps. It seems to have needed a terrible experience like this to make me appreciate a number of things."

LITTLE BOBBIFEROUS

BOBKINETTE

By MINNIE L. UPTON

LITTLE Bobbiferous Bobkinette—

Oh, if you had met her,
You 'd never forget her!
We love her, and pet her;
And yet—and yet—

Although she 's a treasure,
It is n't all pleasure

We get from this furry wee Bobkinette.

When she climbed to the top of the tallest oak,
A-seeking with ardor
A crow for her larder,
No calls could retard her—

But here 's the joke:
She dared not come back
O'er her perilous track

When she 'd reached the tiptop of the tallest oak.

And there she sat, raising a doleful wail.

To urge and beseech her
No courage could teach her—
We just *had* to reach her,
Yet feared we 'd fail;

But the ladders and labors
Of us and our neighbors

At length stilled that bitter, accusing wail.

And Grandmother's knitting!—that reckless kit

Unraveled a stocking
With speed truly shocking.
(Dear Grandma was rocking,
And dozed a bit.)

Around and around her
The kinky yarn bound her—

A prisoner we found her, that luckless kit!

Ah, little Bobbiferous Bobkinette,
You 're not unmixed pleasure
Without mete or measure,
And yet you 're a treasure,
You prankish pet!

Oh, how we excuse you!
Say, does it amuse you,

Wise little Bobbiferous Bobkinette?

THE FUNNY MAN

BY CAROLYN WELLS

THE funniest man I ever did see
Was Mr. Hilarious Cachinnate Glee.

He laughed at everything that he said,
From the time he rose till he went to bed.
He screamed with mirth at the birds in the trees;
And he roared at a bit of bread and cheese!

Whenever anybody spoke,
He thought it the biggest sort of a joke.
He giggled his goggles off! and then,
He giggled his goggles on again!

And when any one said, "Dear Mr. Glee,
Why do you laugh at all you see?"
He shook with laughter and made reply,
"I think it is better to laugh than cry!"



BY FREDERICK MOXON

I SAW a certain sailorman who sat beside the sea,
And in the manner of his tribe he yarned this yarn to me:

"'T were back in eighteen-fifty-three, or mebbe fifty-four,
I skipped the farm,—no, 't were the shop,—an' went to Baltimore.
I shipped aboard the *Lizzie*—or she might ha' bin the *Jane*;
Them wimmin names are mixey, so I don't remember plain;
But anyhow, she were a craft that carried schooner rig,
(Although Sam Swab, the bo'sun, allus swore she were a brig);
We sailed away from Salem Town,—no, lemme think;—'t were *Lynn*,—
An' steered a course for Africa (or Greece, it might ha' bin);
But anyway, we tacked an' backed an' weathered many a storm—
Oh, no,—as I recall it now, that week was fine an' warm!
Who did I say the cap'n was? I *did n't* say at all?
Wa-a-ll now, his name were 'Lijah Bell—or was it Eli Ball?
I kinder guess 't were Eli. He 'd a big, red, bushy beard—
No-o-o, come to think, he allus kept *his* whiskers nicely sheared.

But anyhow, that voyage was the first I 'd ever took,
 An' all I had to do was cut up cabbage for the cook;
 But come to talk o' cabbage just reminds me,—that there trip
 Would prob'ly be my *third* one, on a Hong Kong clipper-ship.



"'I SHIPPED ABOARD THE *LIZZIE*—OR SHE MIGHT HA' BIN THE *JANE*.'"

The crew they were a jolly lot, an' used to sing '*Avast*,
 I think it were, or else '*Ahoy*,' while bailing out the mast.
 And as I recollect it now,—"

But here I cut him short,
 And said: "It 's time to tack again, and bring your wits to port;
 I came to get a story both adventurous and *true*,
 And here is how I started out to write the interview:
 'I saw a *certain* sailorman,' but you turn out to be
 The most *un-certain* sailorman that ever sailed the sea!"

He puffed his pipe, and answered, "Wa-a-ll, I *thought* 't were mine, but still,
 I *must* ha' told the one belongs to my twin brother Bill!"

THE COURAGE OF A COWARD

BY JOSEPH AMES

TED CHESLEY slumped disconsolately against a big boulder down by the river bank, and wondered unhappily how long it would be before he was found out. Already Chick Hammond suspected, he was certain; and what Chick knew, or thought he knew, might as well be blazoned before the other campers in letters three feet high. To be sure, Ted told himself, he did n't really care what the majority of these other boys thought or said. There was only one fellow in the entire crowd for whose opinion he cared a scrap; but for this he cared so deeply, so almost desperately, that the bare possibility of Don Farnham's finding out the truth sent cold chills flickering on Chesley's spine.

Of course Farnham himself knew nothing of this adoration. Ted had taken very good care he should n't. He was a wee bit ashamed of the intensity of his feeling for the big, handsome, easy-going older fellow he had known barely ten days, but whose devoted slave he had been for nine, yet he made no effort to shake off the thrall. On the contrary, the experience was so new, so wonderful, and had come with such total unexpectedness, that there were times when he fairly hugged his chains.

He had arrived in the Maine backwoods shy, timid, bitterly protesting,—the camp was his father's idea, not his own,—full of all sorts of unpleasant anticipations and forebodings, many of which bade fair to materialize, until he found that Farnham was his tent-mate. It would have been natural for the older chap to feel aggrieved at being coupled with such a little shaver, but somehow he was n't. On the contrary, he was rather nice to the boy, and in his good-natured, expansive way he even went to the trouble of allaying the nervousness of that first scary night under canvas.

Chesley's capitulation was instant and complete, and he promptly set up Farnham on a pedestal. Who else was there in all the camp, he asked himself, that could approach his idol in strength or skill or athletic dexterity? Who could dive so daringly, or swim so far, or do a tithe of the many stunts with canoe or rowboat that Don Farnham turned off so easily? Of course he was the leader. Who would n't be, with such a personality and such accomplishments? To Ted it seemed the most natural thing in the world to tender humble allegiance; to thrill with shy pride when Farnham smiled and slapped him on the back; to be downcast when Farnham frowned.

And when at night, before the camp-fire, the big, blond chap would sometimes throw a careless arm about his shoulders and draw the little fellow down beside him, Ted tingled all over with happiness—a happiness, though, that was bitter-sweet with the ever present dread of discovery.

"What if he should find out?" was the shivery query that came so often to his mind. "What will he say if he comes to know?"

He was asking himself that question now as he lingered alone near the entrance to the little pier and the rough log boat-house, for it seemed, somehow, to have become suddenly more pressing and more imminent. He could not tell exactly why he felt this. He was unconscious of having in any way betrayed himself. It seemed, in fact, as if his efforts at concealment and evasion had been uncommonly successful, and yet he was quite certain that Hammond knew. Standing on the outskirts of the group up by the clubhouse just now, it all at once had been borne in on him that this fellow, whose prying, rather bullying, ways and fondness for horse-play had troubled Chesley from the first, had guessed his secret.

"He knows, and he means to spread it," muttered Ted, presently, with an anxious look around. "If I 'm not careful—" He finished with a worried sigh and straightened up. "No use staying here," he went on in a low tone. "They 'll be down for the boats very likely, and—"

At the sound of voices he broke off abruptly and hurried along the bank; but he had delayed too long. He had scarcely taken a dozen steps before the whole crowd, laughing and shouting, raced down the path and burst through the fringe of bushes that lined the shore. Instinctively Chesley tried to shrink out of sight in the undergrowth,—this, of all places, was the worst possible one for an encounter,—but Hammond's sharp eyes found him out, and Hammond's voice, shrilly malicious, instantly made known the fact to the others.

"Where are you sneaking off to, little one? Going to take a walk all by his lonely? Fie-fie, Theodore! Better stick with the bunch."

Ted reddened, but made no answer. He would have given the world to be able to turn off Hammond's half-sneering remarks with a jest or an apt retort, as Don would have done; but his brain seemed a blank, and even though he had

possessed the most scintillating of wits, he lacked the courage. He merely muttered something unintelligible, hesitated weakly, and then, feeling that everybody must be regarding him with contempt for his lack of spirit, he turned about and walked slowly back toward the crowd.

By the time he reached the pier, most of the fellows were strolling out toward the end of it, and the others quickly followed. Ted went with them—not because he wanted to, but because it seemed the only thing to do. But he had no sooner set foot on the planking and glimpsed the rippling water on either hand than he wished he had n't. And all the way out he held his under lip tight between his teeth and wondered whether any one could see his inward trembling.

At least Farnham did n't. He stood on the very edge of the dock, scowling at the smoky haze that hung low over the river and veiled the farther bank. The long-planned hike up Bald-face and camping out over night on the summit had been abandoned that morning, owing to the presence of fire somewhere in the woods, and Don had been especially disappointed. Guessing that this was still on his mind, Ted breathed a little sigh of relief that was strangled in its birth by a sudden glimpse of Hammond's face.

The fellow stood close beside Chesley, and was looking him over in a manner that brought the color flaming into Ted's face in a crimson flood, only to ebb swiftly, leaving him cold and palpitating. There was understanding in the glance, cool scorn, malicious amusement, and last of all a sense of purpose which told the boy, as clearly as spoken words, that the moment he had been dreading was at hand. Before he could even pull himself together, Hammond spoke.

"Come on out on the river, Ted," he urged with an ironic sort of heartiness. "I'll take you for a spin in my canoe."

Chesley caught his breath. "N-n-no, thank you," he gasped hastily. "I—I— That is, I guess I won't—just now."

Hammond laughed disagreeably. "Nor any other time, eh, Baby?" he drawled. "'Cause why? You're—afraid of the water!"

There was a snicker close at hand, and several fellows glanced curiously at the boy. Ted's fingers closed spasmodically, the nails digging painfully into the palms; he squared his narrow shoulders. "Am not!" he retorted defiantly, though his voice was n't quite steady. "Am not afraid!"

Hammond grinned, and winked at the boy next to him. "Are n't you, though? Huh! Maybe you think I have n't eyes in my head. You have n't been out in a boat since we came. You won't

wade in over your knees, and the old man can hardly make you do even that. Gee, but you're a sissy! If I was such a 'fraid-cat, I'd stay tied to Mother's apron-strings instead of joining a camp. Think of any grown fellow being scared of just water!"

For a moment the smaller chap did not answer. His face had grown set, the lips still held steady by the grip of his clenched teeth. The gray eyes, rather wide, flashed unseeing past amused, scornful faces to where Farnham had turned and was regarding him with a sort of frowning, surprised displeasure. He looked as if he were annoyed at being associated with such a craven, and Ted's troubled glance fled back to Hammond's square face, usually so stolid, but just now alight with the glee of his favorite diversion.

"I—I 'm not, either!" stammered Chesley.

"Tell that to your grandmother! What do you want to lie for? Why, only yesterday—"

He paused abruptly, his rather close-set eyes narrowing. Then, before Ted could guess his purpose, a hand shot out and gripped his arm; another caught him firmly by the shoulder, and in a thrice he felt himself thrust irresistibly toward the edge of the unrailed landing. Instantly his hard-won self-control snapped like a taut rope when the strain becomes too great.

"Don't! Don't!" he cried, struggling to escape. "Oh, don't, Chick! Please let me go! Don't throw me into—"

The words ended in a gasping sob as the frightened boy caught hold of his tormentor and clung to him in a frenzy of desperation. In spite of his efforts he was pushed to the very edge of the planking before Farnham's voice was raised in curt command:

"Stop that, Chick! Don't you see he's scared to death? Let him go."

Hammond obeyed with a laugh. "I was n't really going to throw him in," he exclaimed. "Just wanted to prove what I said, that's all. He's scared green."

A murmur of rather contemptuous agreement arose. White-faced and shaking, Chesley, who had drawn swiftly away from the edge of the dock, caught every biting accent, and his hasty, furtive look took in each single, scornful glance before he turned abruptly and walked quickly toward the shore. This time he had not looked at Farnham. There was no need. The cool contempt in the voice of his hero cut like a knife-blade and told him all there was to know.

When the shore was gained, he did not pause, but kept straight on, walking a little stiffly, like an automaton, and paying no heed to the jeering laughter that pursued him. But when he had

pushed through the screen of undergrowth and found himself alone, he stopped abruptly, his face quivering and crinkling before a rush of overwhelming shame.

That hateful thing he had fought so hard against had conquered him again! In spite of all those resolutions to be like other fellows he had

swift reasoning and cold reality came back to banish hope.

How could he understand? How was he to realize what lay back of that hateful, shrinking timidity? What means had he of knowing anything about the results that followed the well-nigh fatal accident years ago when Chesley, the

merest tot, had come so near to drowning that resuscitation was almost a miracle? Not only had the experience planted in the boy's soul an indescribable horror of the water, but it had seemed to twist and warp his whole nature, making him timid and shrinking in a thousand different ways.

Don knew nothing of all this. He saw only the coward afraid of—water! And after all, Ted asked himself drear-ily, what did reasons matter? He might explain and excuse himself into a state of speechlessness, yet through it all the bitter fact remained—he *was* a coward. And though Farnham might listen politely and perhaps that look of scorn would vanish from his face, Ted felt that the scorn itself would linger in his heart. A chap so entirely fearless could hardly give his liking to a craven. At best, their intercourse would become a hollow mockery and intolerable.

A stifled sob broke from the boy's tight lips, then, with a sudden stiffening of his muscles, he straightened and his jaw squared. He could not stand that. It would be better to leave the camp at once. He vaguely realized that objection might be raised to such a step,

but perhaps "Mr. Bobby" would understand; he had impressed Ted, somehow, as the sort who might. At least it would be worth trying.

Moving over to the screen of bushes that hedged him in, the boy peered out. Through the haze lying on the river he saw that the crowd had moved over to the boat-house, whence some of them were just pushing off in a crimson canoe. Farnham was one of these; so was Hammond. As the brilliant-hued craft slid up-stream, the



"HE KEPT STRAIGHT ON, PAYING NO HEED TO THE JEERING LAUGHTER THAT PURSUED HIM."

failed utterly, and made a shameful exhibition of himself he could never live down.

"It was the water!" he muttered, his face crimson. "He had n't any right— It was n't fair—"

He told himself that, save for Hammond's last move, he could have held out against the fellow's taunts and nagging. For a space, too, he tried to make himself believe that his friend might somehow understand and not blame him for something he really could n't help. But

color dulling swiftly in the smoky mist, and presently vanished around a bend, Ted gave a faint sigh of relief. Instinctively he had dreaded facing Farnham again, and it was something to have it put off, even for a brief while.

Leaving the shelter, he walked rapidly up the path to the camp. Under his shuffling feet the dust rose in clouds, powdering the moss and banks of pine-needles on either side. The day seemed even hotter and more breathless than any of its long line of predecessors. Ted was more conscious, too, of the tang of smoke in the air; once or twice it even got him by the throat and made him choke a little.

The club-house, as they called the big, log assembly-building, seemed to wear an oddly deserted look. Clanghorne, one of Mr. Dalton's assistants, was writing on the veranda, but, for some reason, Chesley did not care very much for the young college man, so he slipped around to the detached log-kitchen.

"Where 's Mr. Dalton, Eph?" he asked the grizzled, lanky backwoodsman who presided over the culinary department.

"Out," was the laconic reply. "Run along and don't bother me, Sonny."

There was a frown on his face, and Ted departed without further words, a trifle hurt at this curtness from one with whom he was usually on good terms. He was also not a little disappointed at Eph's news. "Out" meant not so much out of the house, as away from camp, and there was no telling how long he would be gone.

Troubled and uncertain, the boy moved slowly back toward the club-house veranda. He had reached the corner of the building and was deciding whether or not to question Clanghorne, when the thudding of a horse galloping up the trail made him pause.

For an instant he stood there watching curiously. Then a man mounted on a lathered horse shot out of the woods, clattered up to the house, and swung himself easily to the ground. It was Mr. Bobby. He did not speak at once, but stood facing Clanghorne and breathing a bit unevenly. Ted, shrinking back into the shadow of the house, stared at him in an odd sort of suspense.

"Where are the boys?" suddenly asked Mr. Dalton.

"Down at the landing-place," returned Clanghorne, as he stood up. "Do you—"

"Is Kelsey with them?" cut in the older man.

"Why—er—no." There was a touch of embarrassment in the assistant's voice. "Kel had a headache and went in to lie down. The boys are n't—"

"*Humph!* They 'll have to be brought up here

at once, George. The fire 's got beyond those fellows over Kennebago way. It 's traveling toward the old slash at Bagby's lumber-camp. We may have to light out of here any minute. With the trees so thick, we could n't possibly save the place if a wind should spring up."

Ted's heart gave a great leap and for a long moment stood quite still. Then it began to pound so furiously that the blood burned into his cheeks like fire. He was conscious of an exclamation of alarm from Clanghorne, checked in its birth by a series of sharp orders from Mr. Dalton.

"Get them up here at once. We 'll pack only what we can take in the boats. Be sure these are ready to use at a moment's notice. Hustle, George! I 'll tell Eph and Alec."

The writing-pad slipped from Clanghorne's fingers, and with a bound he had cleared the veranda and was running toward the landing. Dalton turned to the door, but, before he had taken more than a step or two, a small, strangled, frightened voice halted him.

"Mr. Bobby! Wait, sir."

Quite unconscious of having used the familiar diminutive that passed current among the boys, Ted Chesley stumbled into view, white and shaking. The realization had come to him that Bagby's old lumber-camp lay up-stream in precisely the direction Farnham and the others had taken. For those others he gave little thought. It was the possibility of Don being in that sort of danger which turned him sick with horror.

"You said the fire—the old camp—" he gasped. "Don—went up in the red canoe. I 'm afraid—"

"Up-stream?" interposed Mr. Dalton, sharply. "You mean Farnham?"

"Yes, sir—and three other fellows."

"How long ago?"

"Fifteen or twenty minutes."

For a second the man stood frowning. Then, with an abrupt movement, he whirled and hastened down the path. At the boat-house he met Clanghorne, surrounded by a cluster of excited boys. The assistant started to say something about the absent ones, but Dalton cut him short.

"I know. I 'm going for them. You superintend the packing. Take all you can without swamping the boats. If the stream were only a bit wider, we 'd be safe out on the water. As it is, we 'll have to go on down. Don't wait for me. Better advise with Eph about the time to leave; he understands the conditions."

Without waiting for a reply, he stepped hastily into the boat-house and pulled out a canoe. Dropping it into the water he reached for a paddle, and then turned to find Ted Chesley beside him. "Well?" he questioned sharply.

The boy swallowed hard. "I—I'd like to—to go with you, sir," he said in a low tone.

"Go with me!" Mr. Dalton's voice was filled with amazement. "What on earth put that idea into your head?"

"Don—" Ted paused, gulping. "You'll go faster with a weight in the bow, sir," he finished.

Mr. Dalton frowned impatiently. A curt refusal trembled on his lips; but his glance happened to rest on the boy's face, and his expression changed abruptly. For a long moment he stared, curiously, intently, at the small, white, frightened countenance, whose gray eyes, wide and almost black, held in them a look that stirred him strangely. Suddenly he motioned to the bow.

"Jump in!"

Ted did not exactly jump in. Gripping the edge of the dock, he lowered himself gingerly into the canoe, trying his best to keep from shaking visibly with the nervous chill that overwhelmed him. The water, so close, so clutching as it lapped against the thin sides of the tricky craft, terrified him as much as ever; but for once something had risen up within him more powerful, even, than terror.

Under the man's vigorous strokes the canoe fairly flew up-stream, but to the boy crouching in the bow it seemed to drag a leaden weight behind. He did not know their destination, but guessed it to be the termination of an old wood-road leading back from the river to the deserted lumber-camp. The boys had cleared it of brush, and occasionally played at camping out in the tumble-down log buildings. Farnham and the rest might not have landed here, but it was a possibility, and the only one they had.

It was several miles against a strong current. When the better part of this had been put behind them, a vagrant, caressing touch against his cheek made Ted catch his breath and stare anxiously ahead. The wind was rising. The shroud of pungent haze, hugging the water like a pall, was lifted presently in puffs and billows, and finally torn quite asunder.

Ted bit his lips, and a film of moisture glistened on his forehead. Instantly his excited imagination intensified the tang of burning wood fourfold. He fairly choked over it, and his nervous gaze searched the woods in fear and trembling for actual sight of flames. In that moment of fresh terror he bitterly regretted the impulse which was taking him straight into the danger. Then a sudden swerving inshore of the canoe brought him up sharply. They had reached the old lumber-trail, and there, pulled up on the bank, lay the red canoe. Ted scrambled out, and Mr. Dalton quickly followed.

"You stay here, Ted, while I look them up," the latter said briefly. "They've probably gone on to the camp. You're not afraid?"

Chesley shook his head. He was—desperately; but he could not tell that to Mr. Bobby. He stood quietly until the man was out of sight. Then, with gritted teeth, and fingers lacing and interlacing, he began to walk nervously up and down the bank.

He could not keep still. It seemed as if he would almost rather have gone with Mr. Dalton than be forced to stay here alone. The wind rose steadily; the smoke had grown perceptibly thicker. Ted remembered vividly the great heaps of slash scattered through the length and breadth of the Bagby land; huge piles of tops, branches, rotten trunks, useless stumps—the refuse of lumbering dried to tinder by the long drought. The moment fire licked into it, the whole thing was bound to go up with a tremendous flash and roar almost like an explosion. Suppose Mr. Dalton did not get to the boys in time? Suppose Don—

Ted caught his breath and ceased pacing. A minute or so later he was moving down the wood-road. He had no definite purpose. There was no way, exactly, in which he could help. But with the thought that Farnham might be in peril he found it impossible to stand there idle. Besides, there was no greater danger in what he was doing. The trail was too plain to miss.

Slowly at first, but with unconsciously increasing speed, he moved forward. The tall, straight timber had all been cut, but here and there the crooked trunks of solitary, misshapen specimens loomed through the smoke like hunchbacked sentinels. Clumps of silver birch, like pale ghosts, bent before the wind, writhing and waving arm-like branches as if in a vain struggle to escape coming annihilation. All through the woods were odd, unnatural noises. The trees rustled fearfully; the pines moaned, high overhead rushed the wind, crying shrill warning. From high overhead, too, came the beat and whir of wings as clouds of frightened birds fled from danger. Through the undergrowth on either hand wild things of the forest crashed or rustled. Once Ted's heart leaped into his throat as a reddish-tawny beast came suddenly into sight loping down the path. It was a fox, but, before Chesley could make up his mind what to do, the animal vanished into the undergrowth, leaving the way clear again.

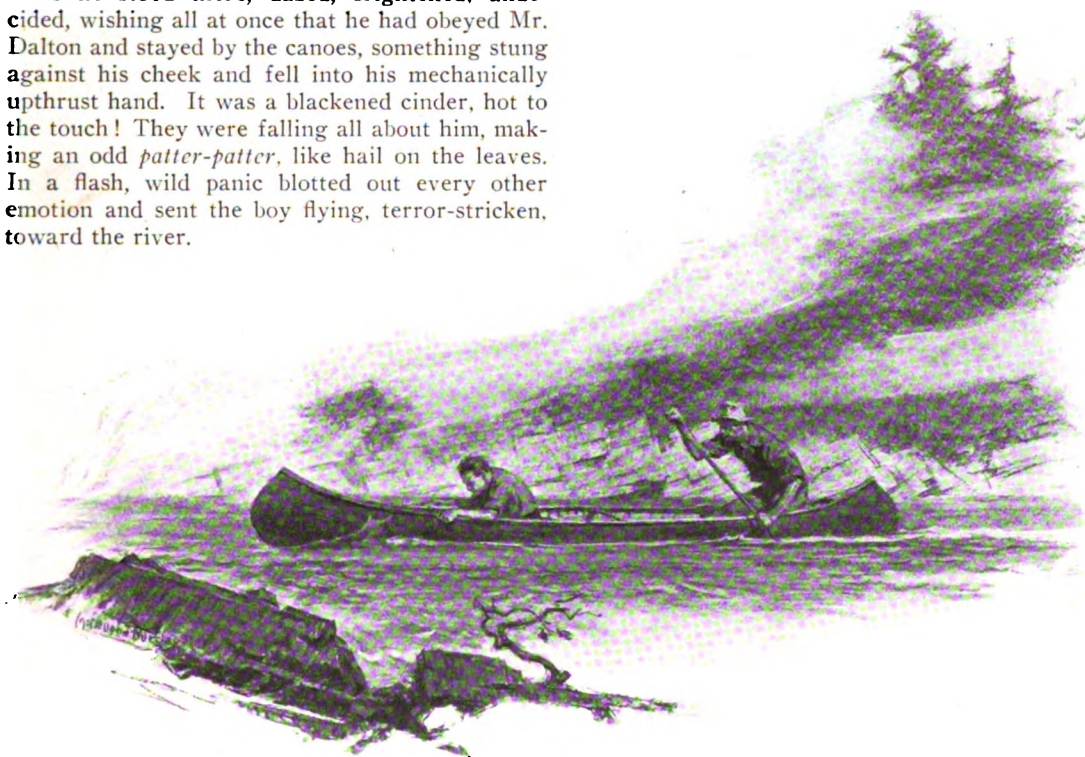
A scant five minutes later the boy suddenly jerked himself up short and held his breath, listening. A dull, distant roaring sounded in his ears. For the past few moments he had supposed it to be the wind; now, with a pang, he realized

his error. There was a cruel, sullen undercurrent to the sound that blanched the boy's face and turned him cold. Like a chill douche, it shocked him abruptly to a realization of his position and of the folly that had brought him into it. What was he doing here, after all? With all the will-
ingness in the world, how could he hope to help Don or any one else?

As he stood there, dazed, frightened, undecided, wishing all at once that he had obeyed Mr. Dalton and stayed by the canoes, something stung against his cheek and fell into his mechanically upthrust hand. It was a blackened cinder, hot to the touch! They were falling all about him, making an odd *patter-patter*, like hail on the leaves. In a flash, wild panic blotted out every other emotion and sent the boy flying, terror-stricken, toward the river.

close to one side of the road to give plenty of room to any others that might follow.

He had scarcely done so when there came a thudding from behind as of people running, and a figure stumbled past him. Even through the smoke he recognized the startling check of Billy Ballard's outing-shirt. Swift on his heels came Farnham; then Mr. Dalton, half carrying, half



"UNDER THE MAN'S VIGOROUS STROKES THE CANOE FAIRLY FLEW UP-STREAM."

The space of time that followed ever remained a blurred, vague outline in Ted Chesley's memory. He recalled clearly only the running—the wild desperation of utter terror that forced him on until he could scarcely lift foot from the ground, or draw breath without a stabbing pain. All the rest was like a nightmare—a chaotic medley of choking smoke, stinging cinders, and, dominating all else, that awful, sullen, crackling roar. Once he tripped on a vine and fell headlong. He was up and on again in an instant, unconscious of the hurt. A little later, a vast hairy body crashed snorting past him—so close that he could have touched the beast. Almost without emotion he glimpsed through the smoke the spreading antlers of a moose. He seemed to understand instinctively that the animal was quite as terrified as he, and all he did was to draw in

supporting the smaller Jack Hargreaves. Close behind him ran Chick Hammond, head down and panting.

They must have all been half blinded, for no one seemed to notice Chesley hugging the undergrowth. Almost before the startled lad realized what was happening, they had pounded past, leaving him to stare, gasping, after their swiftly vanishing backs.

An instant later, with a strangled cry, Ted came to life and flung himself after them. The horror of being left behind was added to his other fears. They would reach the river and not know what had become of him. Meanwhile the flames—

Ted shivered. These were gaining swiftly, he knew. The roar was louder, and a dull, lurid glow began to tinge the thick smoke. Breathless,

panting, he raced on, and suddenly a figure loomed through the haze ahead. It was Hammond, and, with a gasp of thankfulness, Ted sprinted. He had almost forged alongside when all at once the older boy stumbled, staggered, made a futile effort to recover himself, and crashed down, a queer, twisted heap in the road.

"My leg!" came shrilly to Ted's ears above the roaring of the fire. "My leg! Help—"

The thing had happened so unexpectedly that Chesley was a dozen feet ahead before he realized what it meant. Even then he did not stop: he was too frightened. If it had been Farnham, perhaps that inexplicable force that had already carried him out of himself would have moved him again to action—but Hammond!

He ran on three steps and then darted a frightened glance over his shoulder. It was like looking into a dull, distant furnace, and he could feel the heat waves strike his face. There was no sign of Hammond, and with a queer, inarticulate sound in his throat, he turned and stumbled on again.

Why should he turn back? Why should he risk his life for Chick Hammond? From the first he had realized that the others must be too far ahead to hear the loudest hail—that it was entirely "up to him." But if Hammond's leg was broken and he could n't move, what would be accomplished, anyway, by going back? It would only mean the end of them both.

A sob choked the boy. The tears were running down his cheeks, making messy little streaks in the soot and grime that smeared his face. He could picture Chick lying there helpless, *alone*, watching the crimson monster come nearer and nearer. Perhaps he might crawl a little, but in the end—

With a sharp, inarticulate cry, Ted stopped, whirled, and faced the crimson glare. His small white face was set and strained; the eyes, wide and dilated, were like holes burned in a soiled blanket. His teeth bit cruelly into his lower lip. As the heat blast struck him, he ducked his face into the crook of a bent elbow and stumbled back along the track. It seemed only a moment before he came upon the sobbing figure, creeping on hands and knees, that greeted him with a hoarse cry and gripped him with the frantic clutch of a drowning person.

"Oh, Ted! Oh, Ted! My ankle—"

"What's happened to it?" panted Chesley.

"I don't know. I can't walk—"

"Can you stand up? Try! Get up—quick!"

With shaking hands the smaller boy helped the other to his feet. For a moment Hammond stood still, his face twisted with pain. But when he

tried to take a step, it was only Chesley's hold that kept him from falling.

"I can't!" he wailed. "What'll I do? What will I do?"

"Stand still!" snapped Ted, in a tone that was curt and oddly decisive. As Hammond obeyed, he put his arms about the fellow's hips, linking his fingers tightly together. "I can't lift you," he said in a muffled voice, "but maybe I'll do as—as a sort of crutch. Come on! We've got to hurry or else—"

He did not finish; there was no need. Only too vividly they both understood the alternative. With gritted teeth Hammond staggered forward trying to bear the pain silently; trying, also, to put as little weight as possible on the narrow, willing shoulders beneath his arm.

Ted's teeth were gritted, too. His grimy face streamed perspiration, and every unused muscle cried out under the unaccustomed load and threatened to rebel. But he crept bravely forward, wondering how far they had to go—how far they could go—before the flames caught them.

Then came a sort of gap—how long or short he did not know. He could hear Chick sobbing now with every breath. Vaguely Ted felt that it might be a relief to cry, but still his teeth dug into his under lip, choking back all sound. The smoke was blinding; the heat scorched and blistered; showers of sparks and fiery embers fell all about, starting up little new fires on every side. Ted had a queer, dull conviction that the end would come when he could see the actual fire on one side or another. And so when, off to the right, he beheld a thin yellow tongue at the top of a crooked pine, making it burst into flame, the shock staggered him and brought a sob to his dry lips.

Then, like shapes in a dream, two figures loomed suddenly out of the smoke, and the voice of Mr. Bobby rang above the din:

"Here they are, Farnham! You take Chesley. Quick, boy!"

In an instant he had lifted Hammond bodily in his arms and was running toward the river. Ted, caught up in like fashion by Farnham, seemed to slip off into a half-conscious stupor of utter exhaustion where nothing seemed very real or clear.

He vaguely recalled clinging tightly to his friend, and pressing his hot face close against Don's flannel shirt. The whole world seemed burning, but somehow he had faith in Don's ability to get him out. There were moments of being carried thus—how many he could not tell. Then came the thud of dropping into a canoe, the sound of excited voices, the splash of hurried paddling.



"HE CAME UPON THE SOBBING FIGURE, CREEPING ON HANDS AND KNEES."

Beneath him, as he lay with eyes half closed, Ted could feel the rush and lapping of the water. Curiously enough, the sound failed to evoke any of the fear and nervous terror it had been wont to do. Ted thought only how cool and delicious would be the sensation of plunging his whole hot body beneath the surface. Then, so mixed up were his thoughts, he began to wonder dreamily whether Don might not be willing to forget what had happened on the dock and start fresh again.

Gradually, as they sped down-stream, the glare lessened. At last, save for the smoke, the forest resumed its customary cool greenness. Presently Ted opened his eyes wide and raised his head. There were only two of them in the canoe, and

for a second the boy stared blankly at the bare, singed head and smeared, blackened face of the fellow in the stern. Then that fellow caught his eye and smiled, a tired, sooty smile—all teeth like the smile of a negro. It was Farnham.

"Good kid," he murmured, with an inflection which sent the blood flaming into Ted's face. "What a nervy little beggar he is!"

That was all; but presently the smile deepened, and into the friendly face there came a look which set Ted's heart to thumping and brought his lids down defensively to hide the swift, keen joy that smarted in his smoke-filled eyes. Something better than mere forgetfulness had come to Farnham. Somehow, he—understood.

A NEAT WORLD

BY MARTHA BURR BANKS

How very neat they used to be—
The heroes of the days of yore!
They "scoured the plain" and "swept the sea,"
And with their plumed hats "brushed the floor."

THE BOYS' LIFE OF MARK TWAIN

BY ALBERT BIGELOW PAINE

Author of "Mark Twain, a Biography," etc.

CHAPTER XXIII

MARK TWAIN, LECTURER

IN spite of the success of his Sandwich Island letters, Samuel Clemens felt, on his return to San Francisco, that his future was not bright. He was not a good all-around newspaper man—he was special correspondent and sketch writer out of a job.

He had a number of plans, but they did not promise much. One idea was to make a book from his Hawaiian material. Another was to write magazine articles, beginning with one on the *Hornet* disaster. He did, in fact, write the *Hornet* article, and its prompt acceptance by "Harper's Magazine" delighted him, for it seemed a start in the right direction. A third plan was to lecture on the Islands.

This prospect frightened him. He had succeeded in his "Third House" address of two years before, but then he had lectured without charge and for a church benefit. This would be a different matter.

One of the proprietors of a San Francisco paper, Colonel John McComb of the "Alta California," was strong in his approval of the lecture idea. "Do it, by all means!" he said. "Take the largest house in the city, and charge a dollar a ticket."

Without waiting until his fright came back, Mark Twain hurried to the manager of the Academy of Music, and engaged it for a lecture to be given October second (1866), and sat down and wrote his announcement. He began by stating what he would speak upon, and ended with a few absurdities such as:

A SPLENDID ORCHESTRA

IS IN TOWN, BUT HAS NOT BEEN ENGAGED.

Also

A DEN OF FEROCIOUS WILD BEASTS

WILL BE ON EXHIBITION IN THE NEXT BLOCK.

A GRAND TORCH-LIGHT PROCESSION

MAY BE EXPECTED; IN FACT, THE PUBLIC
ARE PRIVILEGED TO EXPECT WHATEVER
THEY PLEASE.

Doors open at 7 o'clock.

The trouble to begin at 8 o'clock.

Mark Twain was well known in San Francisco, and was pretty sure to have a good house. But he did not realize this, and, as the evening approached, his dread of failure increased. Arriving at the theater, he entered by the stage door, half expecting to find the place empty. Then suddenly he became more frightened than ever: peering from the wings, he saw that the house was jammed—packed from the footlights to the walls! Terrified, his knees shaking, his tongue dry, he managed to emerge, and was greeted with a roar, a crash of applause that nearly finished him. Only for an instant—reaction followed; these people were his friends, and he was talking to them. He forgot to be afraid, and as the applause came in great billows that rose ever higher, he felt himself borne with it as on a tide of happiness and success. His evening from beginning to end was a complete triumph. Friends declared that for descriptive eloquence, humor, and real entertainment nothing like his address had ever been delivered. The morning papers were enthusiastic.

Mark Twain no longer hesitated as to what he should do now. He would lecture. The book idea no longer attracted him; the appearance of the *Hornet* article, signed, through a printer's error, "Mark Swain," cooled his desire to be a magazine contributor. No matter—lecturing was the thing. Denis McCarthy, who had sold his interest in the "Enterprise," was in San Francisco. Clemens engaged this honest, happy-hearted Irishman as manager, and the two toured California and Nevada with continuous success.

Those who remember Mark Twain as a lecturer in that early day say that on entering he would lounge loosely across the platform, his manuscript—written on wrapping-paper and carried under his arm—looking like a ruffled hen. His delivery they recall as being even more quaint and drawling than in later life. Once, when his lecture was over, an old man came up to him and said:

"Be them your natural tones of eloquence?"

In those days it was thought proper that a lecturer should be introduced, and Clemens himself used to tell of being presented by an old miner who said:

"Ladies and gentlemen, I know only two things about this man: the first is that he 's never been in jail, and the second is, I don't know why."

When he reached Virginia City, his old friend Goodman said, "Sam, you don't need anybody to introduce you," and he suggested a novel plan. That night, when the curtain rose, it showed Mark Twain seated at a piano, playing and singing as if still a cub pilot on the *John J. Roc*:

Had an old horse whose name was Methusalem,
Took him down and sold him in Jerusalem
A long time ago.

Then, pretending to be surprised and startled at the burst of applause, he sprang up and began to talk. How the audience enjoyed it!

Mark Twain continued his lecture tour into December, and then, on the fifteenth of that month, sailed by the way of the Isthmus of Panama for New York. He had made some money, and was going home to see his people. He had planned to make a trip around the world later, contributing a series of letters to the "Alta California," lecturing where opportunity afforded. He had been on the coast five and a half years, and to his professions of printing and piloting had added three others—mining, journalism, and lecturing. Also, he had acquired a measure of fame. He could come back to his people with a good account of his absence and a good heart for the future.

But it seems now only a chance that he arrived at all. Crossing the Isthmus, he embarked for New York on what proved to be a cholera ship. For a time, there were one or more funerals daily. An entry in his diary says:

Since the last two hours all laughter, all levity, has ceased on the ship—a settled gloom is upon the faces of the passengers.

But the winter air of the North checked the contagion, and there were no new cases when New York City was reached.

Clemens remained but a short time in New York, and was presently in St. Louis with his mother and sister. They thought he looked old, but he had not changed in manner, and the gay banter between mother and son was soon as lively as ever. He was thirty-one now, and she sixty-four, but the years had made little difference. She petted him, joked him, and scolded him. In turn, he petted and comforted and teased her. She decided he was the same Sam and always would be—a true prophecy.

He visited Hannibal and lectured there, receiving an ovation that would have satisfied even *Tom Sawyer*. In Keokuk he lectured again, then returned to St. Louis to plan his trip around the world.

He was not to make a trip around the world,

however—not then. In St. Louis he saw the notice of the great *Quaker City* Holy Land excursion,—the first excursion of the kind ever planned,—and was greatly taken with the idea. Impulsive, as always, he wrote at once to the "Alta California," proposing that they send him as their correspondent on this grand ocean picnic. The cost of passage was \$1200, and the "Alta" hesitated; but Colonel McComb, already mentioned, assured his associates that the investment would be sound. The "Alta" wrote accepting Mark Twain's proposal, and agreed to pay twenty dollars each for letters. Clemens hurried to New York to secure a berth, fearing the passenger-list might be full. Furthermore, with no one of distinction to vouch for him, according to advertised requirements, he was not sure of being accepted. Arriving in New York, he learned from an "Alta" representative that passage had already been reserved for him, but he still doubted his acceptance as one of the distinguished advertised company. His mind was presently relieved on this point. Waiting his turn at the booking-desk, he heard a newspaper man inquire:

"What notables are going?"

A clerk, with evident pride, rattled off the names:

"Lieutenant-General Sherman, Henry Ward Beecher, and Mark Twain; also, probably, General Banks."

It was very pleasant news to hear. Not only was he accepted, but billed as an attraction.

The *Quaker City* would not sail for two months yet, and during the period of waiting Mark Twain was far from idle. He wrote New York letters to the "Alta," and he embarked in two rather important ventures: he published his first book, and he delivered a lecture in New York City.

Both these undertakings were planned and carried out by friends from the coast. Charles Henry Webb, who had given up his magazine to come east, had collected "The Celebrated Jumping Frog of Calaveras County and Other Sketches," and, after trying in vain to find a publisher for them, brought them out himself on the first of May, 1867.¹ It seems curious now that any publisher should have declined the little volume, for the sketches, especially the frog story, had been successful, and there was little enough good American humor in print. However, publishing was a matter not lightly undertaken in those days.

¹The printing was done by John A. Gray and Green, the firm for which the boy Sam Clemens had set type thirteen years before.

Mark Twain seems to have been rather pleased with the appearance of his first book. To Bret Harte he wrote:

The book is out and is handsome. It is full of . . . errors . . . but be a friend and say nothing about these things. When my hurry is over, I will send you a copy to gizen the children with.

The little blue-and-gold volume, so valued by book collectors to-day, contained the frog story and twenty-six other sketches, some of which are still preserved in Mark Twain's collected works. Most of them were not Mark Twain's best literature, but they were fresh and readable and suited the taste of that period. The book sold very well, and while it did not bring either great fame or fortune to its author, it was by no means a failure.

The "hurry" which Mark Twain mentions in his letter to Bret Harte related to his second venture—that is to say, his New York lecture, an enterprise managed by an old Comstock friend, Frank Fuller, ex-Governor of Utah. Fuller, always a sanguine and energetic person, had proposed the lecture idea as soon as Mark Twain arrived in New York. Clemens shook his head.

"I have no reputation with the general public here," he said. "We could n't get a baker's dozen to hear me."

But Fuller insisted, and eventually engaged the largest hall in New York, the Cooper Union. Full of enthusiasm and excitement, he plunged into the business of announcing and advertising his attraction and inventing schemes for the sale of seats. Clemens caught Fuller's enthusiasm by spells, but between times he was deeply depressed. Fuller had got up a lot of tiny handbills, and had arranged to hang bunches of these in the horse-cars. The little dangling clusters fascinated Clemens, and he rode about to see if anybody else noticed them. Finally, after a long time, a passenger pulled off one of the bills and glanced at it. A man with him asked:

"Who 's Mark Twain?"

"Goodness knows! I don't."

The lecturer could not ride any farther. He hunted up his patron.

"Fuller," he groaned, "there is n't a sign—a ripple of interest!"

Fuller assured him that things were "working underneath," and would be all right. But Clemens wrote home: "Everything looks shady, at least, if not dark." And he added that after hiring the largest house in New York he must play against Schuyler Colfax, Ristori, and a double troupe of Japanese jugglers at other places of amusement.

When the evening of the lecture approached and only a few tickets had been sold, the lecturer was desperate.

"Fuller," he said, "there 'll be nobody in Cooper Union that night but you and me. I am on the verge of suicide. I would commit suicide if I had the pluck and the outfit. You must paper the house, Fuller. You must send out a flood of complimentaries!"

"Very well," said Fuller, "what we want this time is reputation, anyway—money is secondary. I 'll put you before the choicest and most intelligent audience that was ever gathered in New York City."

Fuller immediately sent out complimentary tickets to the school-teachers of New York and Brooklyn—a general invitation to come and hear Mark Twain's great lecture on the Sandwich Islands. There was nothing to do after that but wait results.

Mark Twain had lost faith—he did not believe anybody in New York would come to hear him even on a free ticket. When the night arrived, he drove with Fuller to the Cooper Union half an hour before the lecture was to begin. Forty years later he said:

"I could n't keep away. I wanted to see that vast Mammoth Cave and die. But when we got near the building, I saw all the streets were blocked with people and that traffic had stopped. I could n't believe that these people were trying to get to the Cooper Institute, but they were; and when I got to the stage, at last, the house was jammed full—packed; there was n't room enough left for a child.

"I was happy and I was excited beyond expression. I poured the Sandwich Islands out on those people, and they laughed and shouted to my entire content. For an hour and fifteen minutes I was in paradise."

So in its way this venture was a success. It brought Mark Twain a good deal of a reputation in New York, even if no financial profit, though, in spite of the flood of complimentaries, there was a cash return of something like three hundred dollars. This went a good way toward paying the expenses, while Fuller in his royal way insisted on making up the deficit, declaring he had been paid for everything in the fun and joy of the game.

"Mark," he said, "it is all right. The fortune did n't come, but it will. The fame has arrived; with this lecture and your book just out, you are going to be the most talked-of man in the country. Your letters to the 'Alta' and the 'Tribune' will get the widest reception of any letters of travel ever written."

CHAPTER XXIV

AN "INNOCENT" ABROAD, AND HOME AGAIN

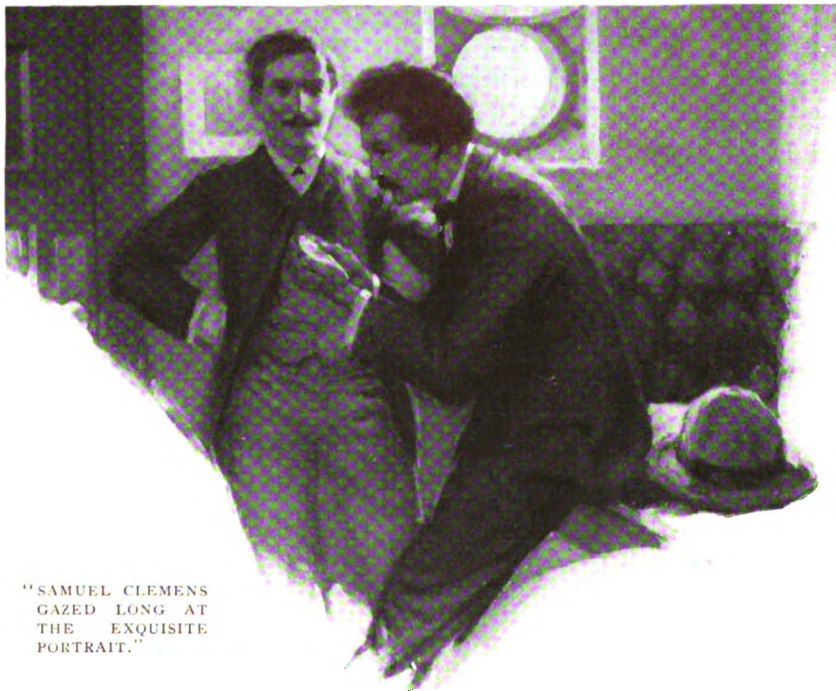
It was early in May—the sixth—that Mark Twain had delivered his Cooper Union lecture, and a month later, June 8, 1867, he sailed on the *Quaker City* with some sixty-six other "pilgrims" on the great Holy Land excursion, the story of which has been so fully and faithfully told in "The Innocents Abroad."

What a wonderful thing it must have seemed in that time for a party of excursionists to have a ship all to themselves to go a-gipsying in from port to port of antiquity and romance. The advertised celebrities did not go, none of them but Mark Twain, but no one minded, presently, for Mark Twain's sayings and stories kept the company sufficiently entertained, and sometimes he would read aloud to his fellow-passengers from the newspaper letters he was writing and invite comment and criticism. That was entertainment for them, and it was good for him, for it gave him an immediate audience, always inspiring to an author. Furthermore, the comments offered were often of the greatest value, especially suggestions from one Mrs. Fairbanks, of Cleveland, a middle-aged, cultured woman, herself a correspondent for her husband's paper, the "Herald." It requires not many days for acquaintances to form on ship-board, and in due time a little group gathered regularly each afternoon to hear Mark Twain read what he had written of their day's doings, though some of it he destroyed later because Mrs. Fairbanks thought it not his best.

All of the "pilgrims" mentioned in "The Innocents Abroad" were real persons. *Dan* was Dan Slote, Mark Twain's room-mate; the *Doctor* who confused the guides was Doctor A. Reeves Jackson, of Chicago; the poet *Lariat* was Bloodgood H. Cutler, an eccentric from Long Island; *Jack* was Jack Van Nostrand, of New Jersey; and *Moult*, and *Blücher*, and *Charlie* were

likewise real, the latter being Charles J. Langdon, of Elmira, New York, a boy of eighteen whose sister would one day become Mark Twain's wife.

It has been said that Mark Twain first met Olivia Langdon on the *Quaker City*, but this is not quite true; he met only her picture—the original was not on that ship. Charley Langdon, boy fashion, made a sort of hero of the brilliant



"SAMUEL CLEMENS
GAZED LONG AT
THE EXQUISITE
PORTRAIT."

man called Mark Twain, and one day in the Bay of Smyrna invited him to his cabin and exhibited his treasures, among them a dainty miniature of a sister at home, Olivia, a sweet, delicate creature whom the boy worshipped.

Samuel Clemens gazed long at the exquisite portrait and spoke reverently of the sweet face. Often after that he came to young Langdon's cabin to look at the pictured countenance, in his heart dreaming of a day when he might meet and learn to know its owner.

We need not follow in detail here the travels of the pilgrims and their adventures. Most of them have been fully set down in "The Innocents Abroad," and with not much elaboration, for plenty of amusing things were happening on a trip of that kind, and Mark Twain's old notebooks are full of the real incidents that we find changed but little in the book. If the adventures of *Jack*, *Dan*, and the *Doctor* are embroidered here and there, the truth is always there, too.

Yet the old note-books have a very intimate interest of their own. It is curious to be looking through them to-day, trying to realize that those penciled memoranda were the fresh first impressions that would presently grow into the world's most delightful book of travel; that they were set down in the very midst of that historic little company that frolicked through Italy and climbed wearily the arid Syrian hills.

It required five months for the *Quaker City* to make the circuit of the Mediterranean and return to New York. Mark Twain in that time contributed fifty-two or -three letters to the "Alta California" and six to the "New York Tribune," or an average of nearly three a week—a vast amount of labor to be done in the midst of sight-seeing. And what letters of travel they were! the most remarkable that had been written up to that time. Vivid, fearless, full of fresh color, humor, poetry, they came as a revelation to a public weary of the tiresome descriptive drivel of that day. They preached a new gospel in travel literature,—the gospel of seeing honestly and speaking frankly,—a gospel that Mark Twain would continue to preach during the rest of his career.

Furthermore, the letters showed a great literary growth in their author. No doubt the cultivated associations of the ship, the afternoon reading aloud of his work, and Mrs. Fairbanks' advice had much to do with this. But we may believe, also, that the author's close study of the King James version of the Old Testament during the weeks of travel through Palestine exerted a powerful influence upon his style. The man who had recited "The Burial of Moses" to Joe Goodman with so much feeling could not fail to be mastered by the simple, yet stately Bible phrase and imagery. Many of the fine descriptive passages in "The Innocents Abroad" have something almost biblical in their phrasing. The writer of this memoir heard in childhood "The Innocents Abroad" read aloud, and has never forgotten the poetic spell that fell upon him as he listened to a paragraph written of Tangier:

Here is a crumbling wall that was old when Columbus discovered America; old when Peter the Hermit roused the knightly men of the Middle Ages to arm for the first Crusade; old when Charlemagne and his paladins beleaguered enchanted castles and battled with giants and genii in the fabled days of the olden time; old when Christ and His disciples walked the earth; stood where it stands to-day when the lips of Memnon were vocal and men bought and sold in the streets of ancient Thebes.

MARK TWAIN returned to America to find himself, if not famous, at least in very high repute.

The "Alta" and "Tribune" letters had carried his name to every corner of his native land. He was in demand now. To his mother he wrote:

I have eighteen offers to lecture, at \$100 each, in various parts of the Union—have declined them all. . . . Belong on the "Tribune" staff and shall write occasionally. Am offered the same berth to-day on the "Herald" by letter.

He was in Washington at this time, having remained in New York but one day. He had accepted a secretaryship from Senator Stewart, of Nevada, but this arrangement was a brief one. He required a fuller freedom for his Washington correspondence and general literary undertakings.

He had been in Washington but a few days when he received a letter that meant more to him than he could possibly have dreamed at the moment. It was from Elisha Bliss, Jr., manager of the American Publishing Company, of Hartford, Connecticut, and it suggested gathering the Mediterranean travel-letters into a book. Bliss was a capable, energetic man, with a taste for humor, and believed there was money for author and publisher in the travel-book.

The proposition pleased Mark Twain, who replied at once, asking for further details as to Bliss's plan. Somewhat later he made a trip to Hartford, and the terms for the publication of "The Innocents Abroad" were agreed upon. It was to be a large illustrated book for subscription sale, and the author was to receive five per cent. of the selling price. Bliss had offered him the choice between this royalty and ten thousand dollars cash. Though much tempted by the large sum to be paid in hand, Mark Twain decided in favor of the royalty plan—"the best business judgment I ever displayed," he used to say afterward. He agreed to arrange the letters for book publication, revising and rewriting where necessary, and went back to Washington well pleased. He did not realize that his agreement with Bliss marked the beginning of one of the most notable publishing connections in American literary history.

Certainly, this was a momentous period in Mark Twain's life. It was a time of great events, and among them was one which presently would come to mean more to him than all the rest—the beginning of his acquaintance with Olivia Langdon.

One evening in late December, when Samuel Clemens had come to New York mainly to visit his old *Quaker City* room-mate, Dan Slote, he found there other ship comrades, including Jack Van Nostrand and Charley Langdon. It was a

joyful occasion, but one still happier followed it. Young Langdon's father and sister Olivia were in New York, and an evening or two later the boy invited his distinguished *Quaker City* ship-mate to dine with them at the old St. Nicholas Hotel. We may believe that Samuel Clemens went willingly enough. He had never forgotten the September day in the Bay of Smyrna when he had first seen the sweet-faced miniature—now at last he looked upon the reality. Long afterward he said:

"It was forty years ago. From that day to this she has never been out of my mind."

Charles Dickens gave a reading that night at Steinway Hall. The Langdons attended, and Samuel Clemens with them. He recalled long after that Dickens wore a black velvet coat with a fiery red flower in his buttonhole, and that he read the storm scene from "*David Copperfield*"—the death of *James Steerforth*; but he remembered still more clearly the face and dress and the slender girlish figure of Olivia Langdon at his side.

Olivia Langdon was twenty-two years old at this time, delicate as the miniature he had seen, though no longer in the fragile health of her girlhood. Gentle, winning, lovable, she was the family idol, and Samuel Clemens was no less her worshiper from the first moment of their meeting.

Miss Langdon, on her part, was at first rather dazed by the strange, brilliant, handsome man, so unlike anything she had known before. When he had gone, she had the feeling that something like a great meteor had crossed her sky. To her brother, who was eager for her good opinion of his celebrity, she admitted her admiration, if not her entire approval. Her father had no doubts. With a keen sense of humor and a deep knowledge of men, Jervis Langdon was from that first evening the devoted champion of Mark Twain. Clemens saw Miss Langdon again during the holidays, and by the week's end had planned to visit Elmira—soon. But fate managed differently. He was not to see Elmira for the better part of a year.

He returned to his work in Washington—the preparation of the book and his newspaper correspondence. It was in connection with the latter that he first met General Grant, then not yet President. The incident, characteristic of both men, is worth remembering. Mark Twain had called by permission, elated with the prospect of an interview. But when he looked into the square, smileless face of the soldier, he found himself for the first time in his life without anything particular to say. Grant nodded slightly

and waited. His caller wished something would happen. It did. His inspiration returned.

"General," he said, "I seem to be slightly embarrassed. Are you?"

Grant's severity broke up in laughter. There were no further difficulties.

Work on the book did not go so well. There were many distractions in Washington, and Clemens did not like the climate there. Then he found the "*Alta*" had copyrighted his letters and were reluctant to allow him to use them. He decided to sail at once for San Francisco. If he could arrange the "*Alta*" matter, he would finish his work there. He did, in fact, carry out this plan, and all difficulties vanished on his arrival. His old friend Colonel McComb obtained for him free use of the "*Alta*" letters. The way was now clear for his book. His immediate need of funds, however, induced him to lecture. In May he wrote Bliss:

I lectured here on the trip (the *Quaker City* excursion) the other night; \$1600 in gold in the house; every seat taken and paid for before night.

He settled down to work now with his usual energy, editing and rewriting, and in two months had the big manuscript ready for delivery.

Mark Twain's friends urged him to delay his return to "the States" long enough to make a lecture tour through California and Nevada. He must give his new lecture, they told him, to his old friends. He agreed, and was received at Virginia City, Carson, and elsewhere like a returning conqueror. He lectured again in San Francisco just before sailing.

The announcement of this lecture was highly original. It was a handbill supposed to have been issued by the foremost citizens of San Francisco, a mock protest against his lecture, urging him to return to New York without inflicting himself on them again. On the same bill was printed his reply. In it he said:

I will torment the people if I want to. It only costs them \$1. apiece, and, if they can't stand it, what do they stay here for?

He promised positively to sail on July 6 if they would let him talk just this once.

There was a good deal more of this drollery on the bill, which ended with the announcement that he would appear at the Mercantile Library, July 2. It is unnecessary to say that the place was jammed on that evening. It was probably the greatest lecture event San Francisco has ever known. Four days later, July 6, 1868, Mark Twain sailed, via Aspinwall, for New York, and on the twenty-eighth delivered the manuscript of

"The Innocents Abroad, or the New Pilgrim's Progress" to his Hartford publisher.

CHAPTER XXV

THE VISIT TO ELMIRA, AND ITS CONSEQUENCES

SAMUEL CLEMENS now decided to pay his long-deferred visit to the Langdon home in Elmira. Through Charley Langdon he got the invitation renewed, and for a glorious week enjoyed the generous hospitality of the beautiful Langdon home and the society of fair Olivia Langdon,—Livy, as they called her,—realizing more and more that for him there could never be any other woman in the world. He spoke no word of this to her, but on the morning of the day when his visit would end he relieved himself to Charley Langdon, much to the young man's alarm. Greatly as he admired Mark Twain himself, he did not think him, or indeed any man, good enough for "Livy," whom he considered little short of a saint. Clemens was to take a train that evening, but young Langdon said, when he recovered:

"Look here, Clemens, there 's a train in half an hour. I 'll help you catch it. Don't wait until to-night; go now!"

Mark Twain shook his head.

"No, Charley," he said in his gentle drawl. "I want to enjoy your hospitality a little longer. I promise to be circumspect, and I 'll go to-night."

That night after dinner when it was time to take the train, a light two-seated wagon was at the gate. Young Langdon and his guest took the back seat, which for some reason had not been locked in its place. The horse started with a quick forward spring, and the seat with its two occupants described a circle and landed with force on the cobble street.

Neither passenger was seriously hurt—only dazed a little for the moment. But to Mark Twain there came a sudden inspiration. Here was a chance to prolong his visit. When the Langdon household gathered with restoratives, he did not recover at once, and allowed himself to be supported to an arm-chair for further remedies. Livy Langdon showed especial anxiety.

He was not allowed to go, *now*, of course; he must stay until it was certain that his recovery was complete. Perhaps he had been internally injured. His visit was prolonged two weeks, two weeks of pure happiness, and when he went away, he had fully resolved to win Livy Langdon for his wife.

MARK TWAIN went to Hartford to look after his book proofs, and there for the first time met the

Reverend Joseph H. Twichell, who would become his closest friend. The two men, so different in many ways, always had the fondest admiration for each other, each recognizing in the other great courage, humanity, and sympathy. Clemens would gladly have remained in Hartford that winter. Twichell presented him to many congenial people, including Charles Dudley Warner, Harriet Beecher Stowe, and other writing folk. But flattering lecture offers were made him, and he could no longer refuse.

He called his new lecture "The Vandal Abroad," it being chapters from the forthcoming book, and it was a great success everywhere. His houses were crowded; the newspapers were enthusiastic. His delivery was described as a "long monotonous drawl, with fun invariably coming in at the end of a sentence—after a pause." He began to be recognized on the street—to have great popularity. People came to their doors to see him pass.

Many of his lecture engagements were in central New York, no great distance from Elmira. He had a standing invitation to visit the Langdon home, and went when he could. His courtship, however, was not entirely smooth. Much as Mr. Langdon honored his gifts and admired him personally, he feared that the brilliant traveler, lecturer, and author and his daughter, who had known so little of life and the outside world, might not find happiness in marriage. Many absurd stories have been told of Mark Twain's first interview with Jervis Langdon on this subject, but these are without foundation. It was an earnest discussion on both sides, and left Samuel Clemens rather crestfallen, though not without hope. More than once the subject was discussed between the two men that winter as the lecturer came and went, his fame always growing. In time, the Langdon household had grown to feel that he belonged to them. It would be going only a step further to make him really one of the family.

There was no positive engagement at first, for it was agreed between Clemens and Jervis Langdon that letters should be sent by Mr. Langdon to those who had known his would-be son-in-law earlier, with inquiries as to his past conduct and general character. It was a good while till answers to these came, and when they arrived Samuel Clemens was on hand to learn the result. Mr. Langdon had a rather solemn look when they were alone together. Clemens asked:

"You 've heard from those gentlemen out there?"

"Yes, and from another gentleman I wrote to concerning you."

"They don't appear to have been very enthusiastic, from your manner."

"Well, yes, some of them were."

"I suppose I may ask what particular form their emotion took?"

"Oh, yes, yes; they agree unanimously that you

Jervis Langdon held out his hand.

"You have at least one," he said. "I believe in you. I know you better than they do."

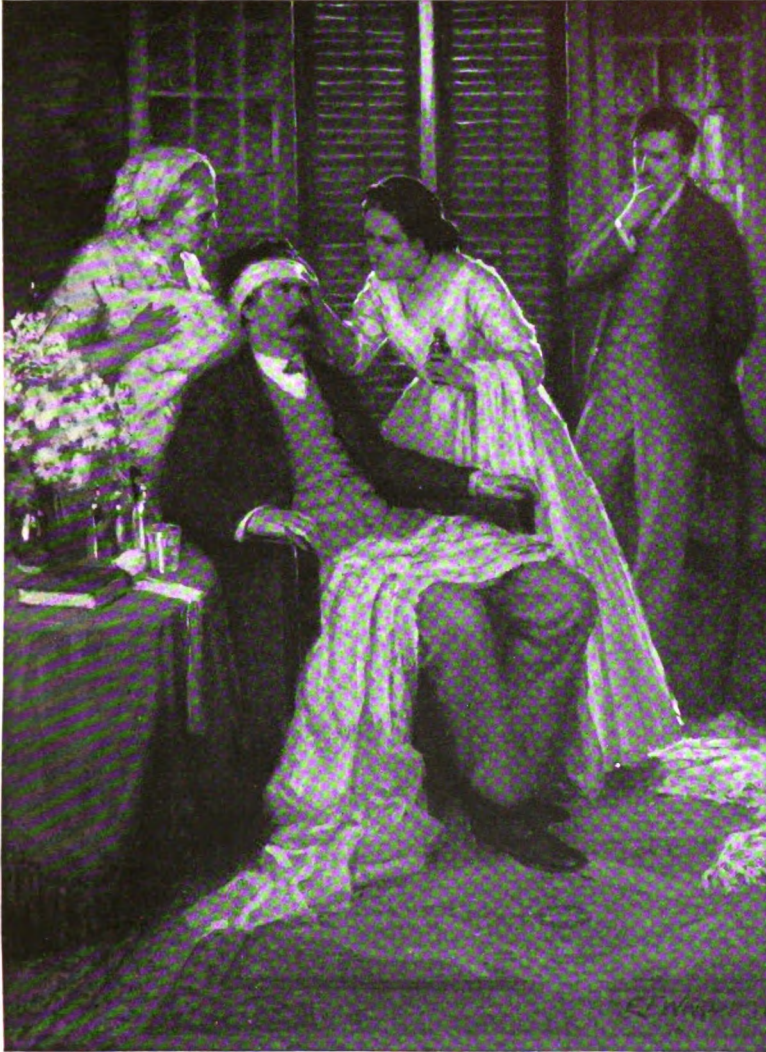
The engagement of Samuel Langhorne Clemens and Olivia Lewis Langdon was ratified next day, February 4, 1869. To Jane Clemens her son wrote:

"She is a little body, but she has n't her peer in Christendom."

Clemens closed his lecture tour in March with a profit of something more than \$8000. He had intended to make a spring tour of California, but went to Elmira instead. The revised proofs of his book were coming now, and he and gentle Livy Langdon read them together. Samuel Clemens realized presently that the girl he had chosen had a delicate literary judgment. She became all at once his editor, a position she held until her death. Her refining influence had much to do with Mark Twain's success, then and later, and the world owes her a debt of gratitude. Through that first pleasant summer these two worked at the proofs and planned for their future, and were very happy indeed.

It was about the end of July when the big book appeared at last, and its success was startling. Nothing like it had ever been known before. Mark Twain's name seemed suddenly to be on every tongue—his book in everybody's hands. From one end of the country to the other, readers were hailing him as the greatest humorist and descriptive writer of

modern times. By the first of the year, more than thirty thousand volumes had been sold. It was a book of travel; its lowest price was three and a half dollars; this record has not been equaled since. In England also large editions had been issued, and translations into foreign languages were under way. It was and is a great book because it is a human book—a book written straight from the heart.



"HE WAS NOT ALLOWED TO GO, NOW, OF COURSE."

are a brilliant, able man—a man with a future, and that you would make about the worst husband on record."

The applicant had a forlorn look. "There is nothing very evasive about that," he said.

Langdon reflected. "Have n't you any other friend that you could suggest?"

"Apparently none whose testimony would be valuable."

If Mark Twain had not been famous before, he was so now. Indeed, it is doubtful if any other American author was so widely known and read as the author of "The Innocents Abroad" during that first half year after its publication.

Yet for some reason he still did not regard himself as a literary man. He was a journalist, and began to look about for a paper which he could buy—his idea being to establish a business and a home. Through Mr. Langdon's assistance he finally obtained an interest in the "Buffalo Express," and the end of the year 1869 found him established as its associate editor, though still lecturing here and there, because his wedding-day was at hand and he must not lack funds.

It was the second of February, 1870, that Samuel Clemens and Olivia Langdon were married. A few days before, he sat down one night and wrote to Jim Gillis, away out in the Tuolumne Hills, and told him of all his good fortune, recalling their days at Angel's Camp, and the absurd frog story, which he said had been the beginning of his happiness.

On the morning of the wedding-day Mark Twain received from his publisher a check for four thousand dollars, his profit from three months' sales of the book, a handsome sum.

The wedding was mainly a family affair. Twichell and his wife came over from Hartford—Twichell to assist Thomas K. Beecher in performing the ceremony. Jane Clemens could not come, nor Orion and his wife; but Pamela, a widow now, and her daughter Annie arrived from St. Louis. Not more than one hundred guests gathered in the stately Langdon parlors that in future would hold so much history for these two—so much of the story of life and death that thus made its beginning there. Then, at seven in the evening, they were married, and the bride danced with her father, and the Rev. Thomas Beecher declared she wore the longest gloves he had ever seen.

It was the next afternoon that the wedding-party set out for Buffalo. Through a Mr. Slee, an agent of Mr. Langdon's, Clemens had engaged,

as he supposed, a boarding-house, quiet and unpretentious, for he meant to start his married life modestly. Jervis Langdon had a plan of his own for his daughter, but Clemens had received no inkling of it, and had full faith in the letter which Slee had written, saying that a choice and inexpensive boarding-house had been secured. When about nine o'clock at night the party reached Buffalo, they found Mr. Slee waiting at the station. There was snow, and sleighs had been ordered. Soon after starting, the sleigh of the bride and groom fell behind and drove about rather aimlessly, apparently going nowhere in particular. This disturbed the groom, who thought they should arrive first and receive their guests. He criticised Slee for selecting a house that was so hard to find, and when they turned at last into Delaware Avenue, Buffalo's finest street, and stopped before a handsome house, he was troubled concerning the richness of the locality.

They were on the steps when the doors opened and a perfect fairyland of lights and decoration was revealed within. The friends who had gone ahead came out with greetings to lead in the bride and groom. Servants hurried forward to take bags and wraps. They were ushered inside; they were led through beautiful rooms, all newly appointed and garnished. The bridegroom was dazed, unable to understand the meaning of it all—the completeness of their possession. At last his young wife put her hand upon his arm.

"Don't you understand, Youth?" she said—that was always her name for him. "Don't you understand? It is ours, all ours—everything—a gift from Father."

But still he could not quite grasp it, until Mr. Langdon brought a little box and, opening it, handed them the deeds.

Nobody quite remembers what was the first remark that Samuel Clemens made, but either then or a little later he said:

"Mr. Langdon, whenever you are in Buffalo, if it's twice a year, come right here. Bring your bag and stay over night if you want to. It sha'n't cost you a cent."

(To be continued.)

LIMERICKS

A CLEVER Scotsman, long ago,
With notions sage and conny,
Who owned a donkey, lean and slow,
Named it "Maxwelton," don't you know,
Because its "brays" were bonny.

Nixon Waterman.

"It's a very warm day," observed Billy.
"I hope that you won't think it silly
If I say that this heat
Makes me think 't would be sweet
If one were a coolie in Chile!"

Tudor Jenks.



EDITH'S SISTER

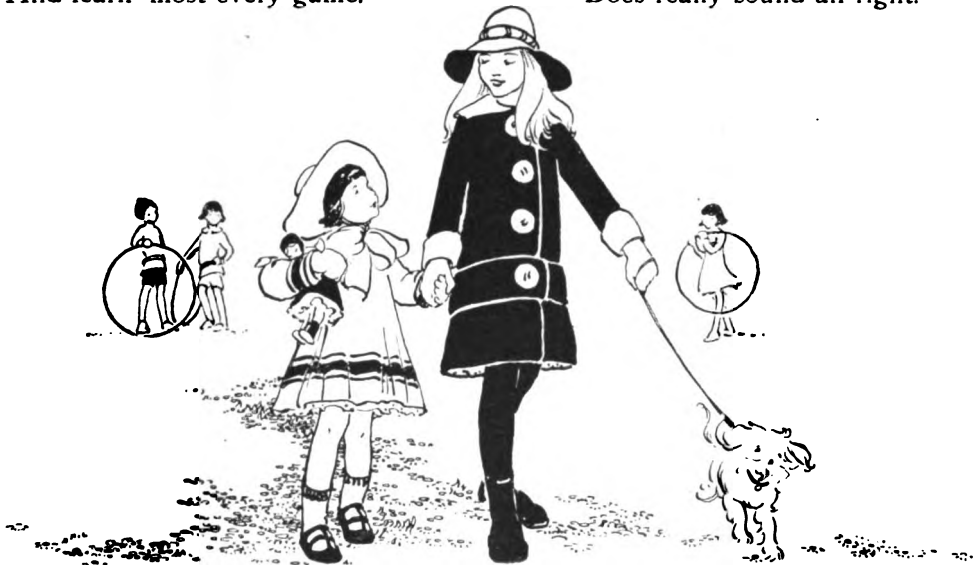
BY ALIX THORN



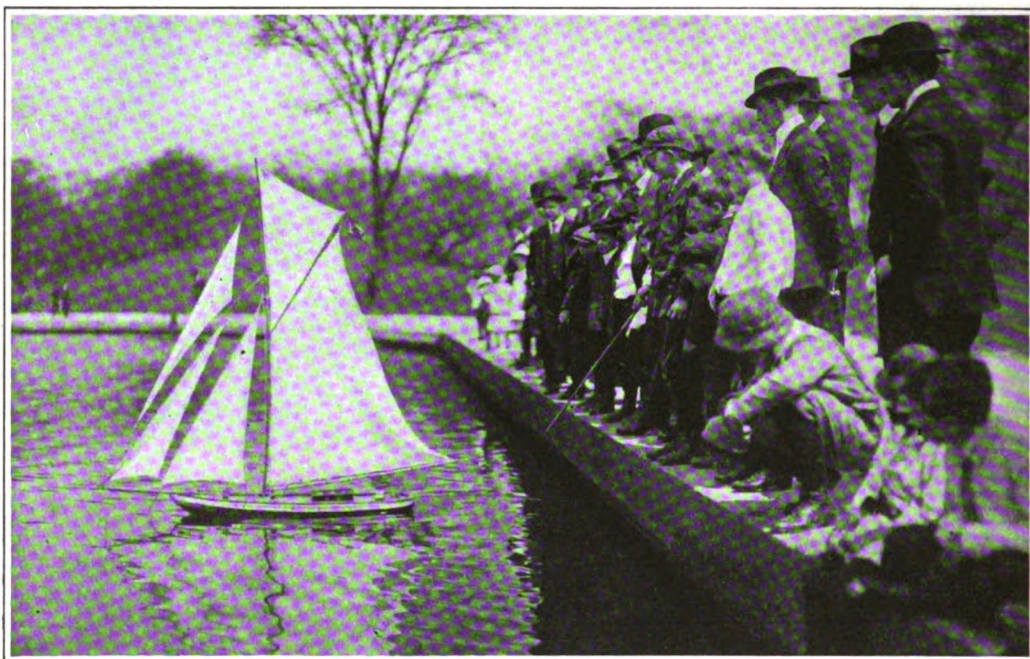
I 'm only Edith's sister—
 You see I 'm rather small;
 They never call me Mary,
 But I don't care at all.
 The children watch me coming;
 They look up from their play;
 "Oh, here is Edith's sister!"
 I always hear them say.

I s'pose, when I grow taller,
 I 'll have my Mary name,
 And hurry off each day to school,
 And learn 'most every game.

Then I 'll be asked to parties,
 And stay up more at night,
 Yet, "Edith's sister," 'cause I 'm five,
 Does really sound all right.



TOY YACHTING IN CENTRAL PARK



Photographs by George Grantham Bain.

A MINIATURE RACER.



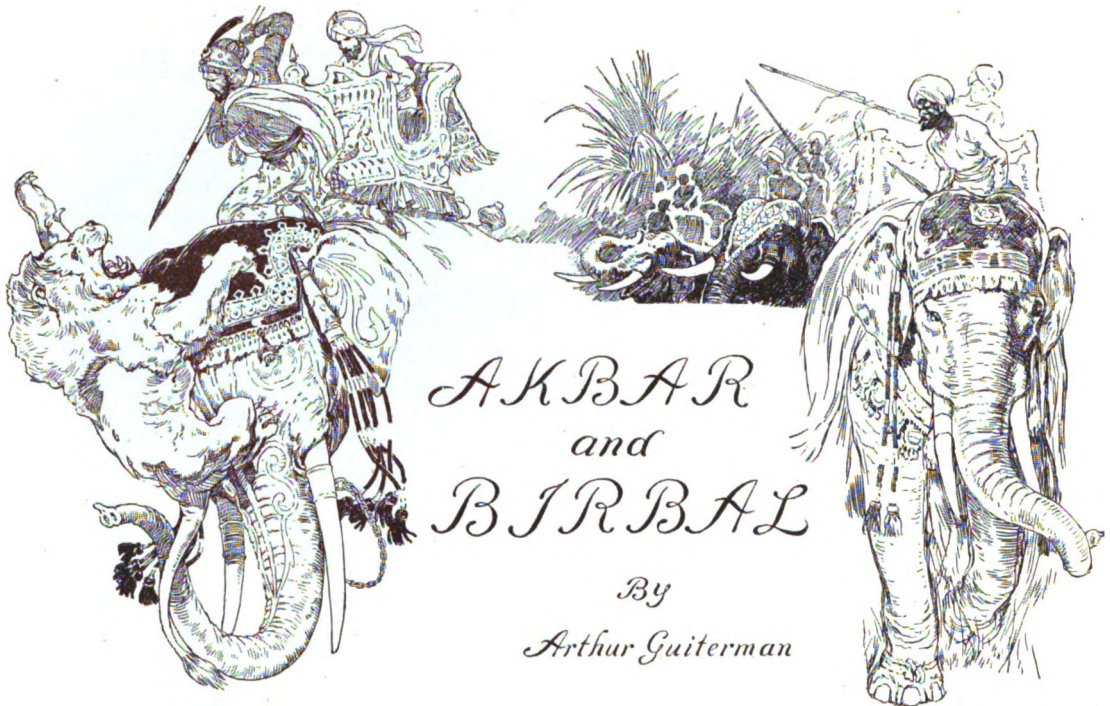
"ALL READY!"



"THEY'RE OFF!"



A FAIRY FLEET AND ITS BEAUTIFUL REFLECTION IN THE LAKE.



OF AKBAR AND HIS COURT¹

OFTEN it is asked, "What manner of man was this Akbar of whom there be so many tales?" Akbar, the King and Emperor, was tall and handsome of face and person, of a nut-brown color, strong, long-armed, light of foot, quick of hand, and keen of eye. So dauntless was he that he feared not to spring upon the back of a mad elephant, even one that had slain its keeper; and throughout Hindustan was he famed for his prowess in war and the chase, for deft stroke and unerring aim. Undismayed, he killed the black-maned lion that had leaped upon the forehead of his elephant; his swift arrow pinned to earth the tiger that had seized upon one of his train; and more than once the true shot of his ready matchlock had saved foot-soldiers of his guard from peril. A bold horseman, it was ever his delight to dash across the plains of Ind, pursuing the swift antelope with the hunting-leopard, or *yuz*. When such leopards were caught in his pits, Akbar feared not to take them out with his own hands, and oft would train them to the chase. In truth, even as he went about through his palace and his royal city of Agra, he was followed by a young leopard, free of leash or collar, that obeyed his every word. Modest of dress was Akbar, and spare of diet, loving fresh fruits more than meat, and abstaining from wine; yet

¹ See ST. NICHOLAS for December, 1915.

much is written of the splendor of his court. Some tell that he had five thousand elephants and ten thousand horses, and that a huge army lay encamped in his own pavilions, enclosed in walls that were as of gold and that stretched for miles about; that his carpets were of silk and gold, and his hangings of velvet and pearls; and that thrice each day he caused himself to be weighed in scales of gold, the first time with counterweights of gold, the second time with counterweights of silver, and the third time with counterweights of fine perfumes, and that each day he gave these precious weights, wherewith his body had been weighed, as free gifts to the poor among his people.

FATE, PROVIDENCE, AND ACHIEVEMENT

IN his council-chamber spake Akbar the King: "Tell me, my friends, ye that have seen much and know the world, what is that which chiefly rules the fortunes of men?"

First answered him Faizi: "It is Fate. Naught happens to man save what is foreordained and written upon his forehead. Thus, to the good Nawab of Lucknow, who refuses nothing to any, came a beggar man who would have no less than a thousand rupees. Him answered the nawab, 'Gladly would I give thee a thousand, but it is decreed by Fate that thou shouldst receive but a hundred.'

"Yet still the beggar clamored for the greater

sum, saying that for such was his need. So at last the nawab caused to be placed before him two covered jars, in one of which lay a thousand and in the other a hundred rupees, bidding the beggar choose the one or the other.

"Then the beggar man chose the jar that held the hundred rupees, proving that, as the nawab had said, such was his Fate."

Next said his brother, Abufazl the Sage: "Not so. In all things, great and small, we may see the hand of Providence.

"It is told, O King, that upon a day, Suleiman the Glorious, upon whom be peace, stood beside a river where he beheld a wee ant toiling along the water's edge with a grain of rice. And suddenly from the depths of the stream rose a huge crocodile that took the ant into his mouth and again sank down. Yet within the hour once more appeared the crocodile, and forth from his mouth and up the bank crept the ant, but without the grain of rice.

"Then Suleiman the Glorious and Wise, who understood the speech of all living things, said aloud, 'I wonder what is the meaning of this.'

"And the ant replied: 'God hath planted in this river a stone; in a hole in that stone dwells a little blind worm. Therefore God ordered me each day to take to that worm a grain of rice for food, and gave me the aid of the crocodile to that end.'

"Whence men have made the proverb, 'God provideth food for the worm, and for the insect under the stone.'"

Last spake the Rajah Birbal, gaily, as was his usage: "They are wrong that hold that the lives of men are ruled by one thing alone. Of Fate I doubt; in Providence I trust; of Chance, of Courage, of Achievement, I know. And this light tale speaks somewhat of that same Chance and Courage:

"It is told that an old soldier, riding on his old pony, came to a village that was infested with tigers. Finding lodging in a mean hut with a broken roof, he asked the old woman to whom it belonged whether there was aught to fear in her house; and she replied, 'There is much fear of a leak.'

"Now it chanced a tiger that was lurking without overheard this speech, and—for the folk of the North say that tigers understand the tongue of men—deemed that 'a leak,' of which he had never before heard, must be something strange and terrible.

"That night there was a great thunder-storm, and the old soldier's pony in its fright broke loose and ran away. And the old soldier, going out to search for his pony in the darkness, caught hold

of the tiger by mistake, thrashed him soundly and tied him up securely—for the tiger dared do nothing, as he thought, 'This is surely that terrible "leak." I had better keep still.'

"In the morning the old soldier beheld the tiger safely trussed where he deemed to have found his pony; and when he had recovered from his surprise, he led the subdued beast into the city, where the fame of his deed reached the king, who, for his bravery, sent him a robe of honor and made him commander of the army.

"The tale is but a light one. Yet men should neither dully take ill fortune as fated, nor lean too much on Providence, but remember the brave saying, 'The world is wide, and no cripple am I!'"

BIRBAL AND THE OFFICE-SEEKERS

Now it befell that Akbar had need of a treasurer in one of the royal treasuries; and as was his wont when such matters became heavy and men clamored for office, he sent to the Rajah Birbal, saying, "Choose thou the man."

So there came before the rajah two men whose claims to the post were held to be of the best; for one was a clever mathematician, greatly skilled in accounts, and the other was a wealthy money-lender able in affairs. And Birbal said, "Let each speak for himself."

Then began the money-lender:

"Beware, my lord, of placing in so great an office one who, though versed in the science of numbers, is all unskilled in the affairs of the world; for with such men, figures are like to take the place of common sense.

"In my native town is told a sad tale of a mathematician who journeyed with his family and all his goods in a bullock-cart until they came to a river across which was no bridge. So this wise mathematician sent his servant out upon the river in a little skiff that was on the bank to sound the depth of the water. And the servant returned to say that in one place the depth of the water was eight feet, and in another three feet, and in yet another but one foot. Then did this mathematician add together those three depths and divide their sum by three, thus determining that the river was, upon an average, but four feet deep. Therefore he sent his cart into the stream ahead of him without fear; but when it reached the middle, it sank from sight!

"Greatly grieved and puzzled, the poor man stood long upon the spot, ever re-casting his figures. Then at last, mournfully shaking his head, said he: 'The account is correct,—but why is the family drowned?'"

Then spake the mathematician, glowering upon

his rival: "My lord, I beseech thee as thou seekest the weal of the realm, be doubly cautious of choosing for this post any money-lender; since it is well known that those of that calling are not only untrustworthy, but are also so crafty that in seeking to beguile others they even overreach themselves. Witness a tale that is told by the priests of the great temple in Benares:

"At one time there came daily to this temple a poor pundit, or scribe, named Labah Kol, who spent many weeks in copying the sacred writings. And there came also to the temple a rich money-lender named Lal Khan, who hid himself in a recess in the wall before the doors were closed at night, for he had heard that the images of the gods spoke to one another in the darkness, and he longed to learn what they might say, judging that it might profit him.

"And when it was midnight a voice came from the huge image of Vishnu, saying to the image of Ganesh, the god of fortune—he with the elephant's head—"Ganesh, what reward wilt thou give to the pious pundit, Labah Kol, when he hath finished his task of copying the sacred writings?"

"And the image of Ganesh replied, 'I will give to him a thousand rupees.'

"So the next morning the crafty money-lender went to the poor pundit saying, 'Friend, I will give thee a hundred rupees for whatever is to be given thee as a reward for thy work in copying the sacred writings.' Then, as the pundit knew naught of any reward, he gladly accepted the sum offered to him.

"The night after the pundit's work was finished, the money-lender again hid in the temple. And when it was midnight, he came forth boldly and said to the image of Ganesh, 'Now give me the reward promised to Labah Kol, the pundit, which, as thou knowest, I have bought from him.' But the image remained silent.

"Again and again the money-lender made his demand, but never a sign came from the image. At last in his wrath Lal Khan struck the image, shouting, 'Give me my due!'

"Then the image of Ganesh with the elephant's head reached forth, and wrapping its stone trunk about the money-lender, held him in the air, helpless and too frightened to breathe.

"Now again spake the image of Vishnu, saying, 'Ganesh, why hast thou not given the thousand rupees to the pious pundit, Labah Kol, according to thy word?"

"And the image of Ganesh replied, 'I have already given him a hundred rupees, and I am holding the money-lender, Lal Khan, as security for the remaining nine hundred. Not until he

payeth them to the pious pundit shall he be released!'"

"Truly," laughed the Rajah Birbal, "ye have both said well. And now I also bethink me of the tale of a crane that, walking along the river shore, saw a great mussel open its shells to drink the sun.

"And the crane, being hungry, thrust its beak between the shells. And the mussel, not being ready to be eaten, snapped its shells upon the beak, holding fast.

"Then the crane, with much labor and a great flapping of wings, dragged the mussel to the dry sand, and said, speaking through its shut bill, 'Surely, if it doth not rain this day or to-morrow, there will be a dead mussel.'

"And the mussel, speaking through its clasped shells, replied, 'Surely, if aid comes not to thee to-day or to-morrow, there will be a dead crane.'

"But now, along the bank came a fisherman and took them both.

"So well have ye spoken, one against the other, as to prove to me the folly of choosing either; and I appoint instead Khokar Mir, the gem dealer, who is both able in affairs and skilled in accounts, and who speaketh little of himself and naught at all against his fellows."

BIRBAL AND THE PROUD KING OF PERSIA

"RASH is he who speaketh truth unto princes," laughed Faizi, in the council-chamber.

"Not so," said the Rajah Birbal; "truth should ever be spoken, and truth may ever be safely spoken, even to kings and the other great ones of earth, by him that hath the gift called 'tact'—the wit to array displeasing truths in the cloak of pleasant words."

"Ho!" scoffed Badaoni Khan. "And doubtless this gift of tact is thine! I pray thee, my lord," he spake further, bowing before Akbar the King, "let this speaker of truth in pleasing words be sent on the embassy to the King of Persia, for methinks we have need of so smooth-tongued an ambassador."

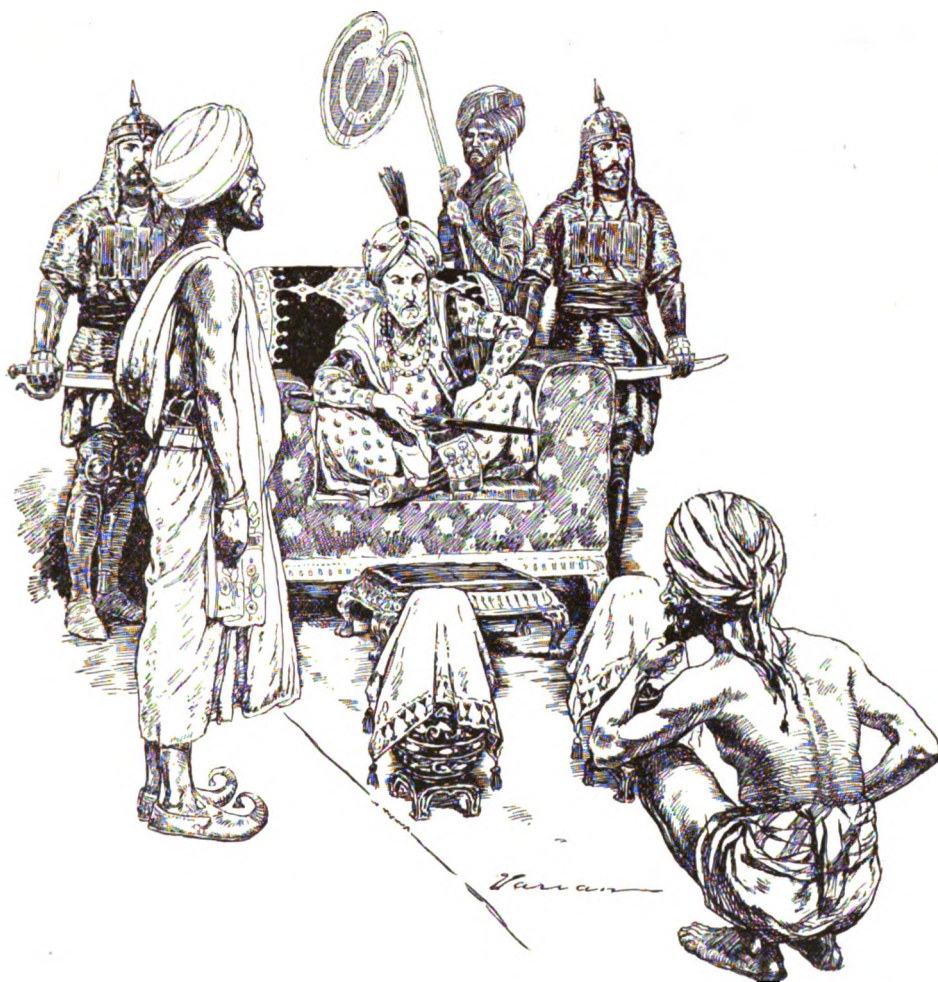
Now the King of Persia, while strong and able, was arrogant and vain; and Akbar, seeking his friendship and alliance in the cause of peace, knew well how hard it was to deal with him because of his overweening pride; and much had he desired to name the Rajah Birbal as his ambassador to the Persian court, but still had he refrained from so doing lest the new honor to the Brahman should stir the jealousy of his Mogul nobles; but now that Badaoni, seeking the rajah's downfall, had in malice named him for the hard and dangerous mission, the king, trust-

ing the wit and wisdom of his friend, said gladly, "So let it be."

Then went the Rajah Birbal with a splendid retinue and rich gifts to the city of Tabriz. But when he was come thither, he found the lords of the Persian court in great sorrow and per-

"Be of good heart, my lords of Persia," said Birbal, "for I will undertake to tell your king the meaning of his vision."

Glad were the Persian nobles, and they promised the rajah in turn to do all in their power to further the success of his mission. So it was



"THE NAWAB CAUSED TO BE PLACED BEFORE THE BEGGAR TWO COVERED JARS."

plexity. So he asked them, in all courtesy, the cause of their woe, and they replied:

"Our lord the king hath dreamed a dream of which he seeketh the meaning. And the dream that he dreamed was that all the teeth of his mouth fell out upon the ground. Now the dream-books of the astrologers declare the true interpretation of this dream to be that all those that are of the king's blood will die before him; and since our lord is quick and violent in anger, we fear to tell him this evil thing that the dream signifies, yet may we nowise falsify the word of the astrologers."

told the King of Persia that the ambassador from Ind would interpret to him his dream.

Now when Birbal was come into the king's presence, the king said, "Rajah of Akbar, is my dream of good or of evil omen?"

"Of good omen, great King," said the rajah, "assuredly of good omen; for it portends that my lord—may he live ten thousand years!—will survive even the youngest of his relations!"

Then was the king greatly pleased, for he desired long life above all things else; and in his vanity he asked Birbal many hard questions touching his own grandeur and glory.

"Rajah of Akbar," said the Persian king, "which was the greater—my father or myself?"

Now of a truth the king, despite his foolish vanity, was far greater than his father had been, yet might not Birbal say so plainly without belittling the father to the son, which were an ill thing; so he answered, courtly-wise, "Great is my lord, and great was his father on whom be

So delighted was the vain king at hearing such words from the trusted servant of his most powerful neighbor that he made much of Birbal, whose mission prospered wondrously and greatly to the advantage of Akbar.

But when the rajah, laden with honors and success, returned to the city of Agra, the nobles who plotted his downfall gleefully told Akbar of



"THE OLD SOLDIER LED THE SUBDUED BEAST INTO THE CITY."

peace; yet his father was greater, in that he had a son who is greater than himself, which my lord hath not."

Long laughed the king with pleasure of the deftly turned speech and graceful compliment, and asked Birbal a yet harder question, saying, "Which is the greater—thy master Akbar or myself?"

And Birbal answered again, never faltering, "My master Akbar is as the crescent moon, but my lord of Persia is as the full moon."

Birbal's speech to the Persian king. So Akbar summoned Birbal before him and spake in well-feigned wrath, saying: "Thou hast said that I am as the crescent moon and that the King of Persia is as the full moon. Was that word of thine true and loyal?"

"Yea, O King," replied the rajah, boldly, "both loyal and true. For my lord is as the crescent moon, ever waxing in power and glory; and well he knows that the King of Persia is as the full moon that is even now upon the wane."

SNUBBED

BY HELEN HOYT

A BLUE JAY with a bonnet on
Came to our lawn.
He was very curious—
But not about us;
Did not mention where he was bound;
Examined the ground;

Then flew.
Taking his white and blue
Into the air—
'T was none of our affair—
And he did not even stop to say
Good day!

ON THE BATTLE-FRONT OF ENGINEERING

BY A. RUSSELL BOND

Managing Editor of "Scientific American," and author of "With Men Who Do Things"

CHAPTER VII

BESIEGED BY A RIVER OF ICE

It was late in February by the time the work at Copper Center had proceeded far enough to permit Mr. Barto to leave for New York; but by that time, as there appeared to be no further trouble in store, Mr. Barto, with Perry and Jack, took the east-bound express.

"I am very anxious to inspect a railroad bridge that our company is working on," announced Mr. Barto, "a bridge across the Missouri River, right on our way, so we'll stop off and look at it. It was built over ten years ago. Now a new bridge is being built that is to use a part of the old one, and the transfer of the old to the new is not going to take more than a minute or two."

Jack and Perry both sensed something interesting, and began plying him with questions.

"I will tell you the whole story," said Mr. Barto. "When it was first decided to build this bridge, there was n't enough money to be had to erect a first-class structure throughout. It must have been a man with a very wise head that proposed the scheme adopted. Of course, any bridge across the Missouri at that point would have to have a draw span to let boats through, and because the river-bottom is constantly shifting, this span ought to be very wide. So this man, whoever he was, said: 'Our road is going to grow, so we'll put most of our money into a swing span, and make the swing span strong enough and big enough to carry all the traffic that will probably go across it for many a year to come. Then we'll put up trestle approaches and short girder spans resting on piers of piles, to connect this swing span with the shores—'

"No, that was n't so wonderfully wise," agreed Mr. Barto, interrupting a remark to that effect by Perry. "Lots of people plan for the future like that, but this man had a longer head than most wise men. 'Now this is a temporary structure,' said the man. 'It will last seven years, maybe eight. That is n't a very long time; then what shall we do? How are we going to build our new bridge without tying up all the traffic across the river?' How do you suppose he did it?"

Jack shook his head. "I never could guess."

"Give it up. What's the answer?" said Perry.

"His answer was just as simple as the scheme

was clever. 'The only part of the first bridge that we want to save,' he said, 'is the swing span. If we build the second bridge at a slight angle with the first, so that the two cross like a long narrow X, with the center of the X at the swing span, traffic can flow over the first bridge while the second is building, and then when all is ready it will be a matter of not more than a minute or so to turn the swing span on its pivot and line it up with the new bridge.'"

"That is simple, is n't it?" cried Perry.

"And clever, too," added Jack.

"Yes," continued Mr. Barto, "and that fellow must have been as thorough as he was forehanded. He made such a solid structure of the temporary part of the bridge that, although it was supposed to last only seven or eight years, it is still in good condition, and is just beginning to show signs of giving out. Probably it will have given service for close to twelve years before the new bridge is finally completed."

All this was very interesting history, but the boys did n't anticipate seeing anything unusual in the construction. However, Mr. Barto explained that what interested him most was the manner of sinking the pier for a new swing span.

"I told you," he said, "that they paid particular attention to the swing span of the old bridge. Well it was a big span, 520 feet long, as long as two avenue blocks of the kind we have in New York; the longest swing span that had ever been built up to that time. It was planned to build a set of fixed spans for the new bridge, but the old Missouri has a mind of its own. It is such an unreliable river that the channel shifts 'overnight,' as they say, and you might wake up some fine morning to find that the channel had moved out from under the swing span and shifted to the fixed part of the bridge. So now they are going to build a new swing span, just as big as the first, and our company is putting down the foundation for this span to swing on; that will allow the river over a thousand feet in which to shift its channel without tying up shipping.

"The foundation for this pier is being put down by means of a big caisson, something like our caisson here; that is, the sand is being dredged out from inside the caisson as it was from our caisson, but in the Missouri work the caisson has to go down about one hundred and fifteen feet."

"Whew! That 's pretty deep," cried Perry. "Won't they have lots of trouble with it?"

"Oh, no; the pivot pier of the first bridge was put down in the same way."

Perry and Jack arrived at the scene of the bridge expecting to see a massive caisson like that at Copper Center. Instead, they found a cylinder of steel some forty feet in diameter. Inside this was a second cylinder, twenty feet in diameter, which at the bottom flared out to meet the edge of the forty-foot cylinder, and thus made a cutting edge. The two cylinders were strongly braced together, and the space between them was filled with concrete. This made a wall ten feet thick, and also made the caisson heavy enough to sink when the sand and mud were dredged out from inside the twenty-foot shell.

The only way to get out to the caisson was by means of a rowboat.

"We are rather short of boats this morning," explained Mr. Davidson, the engineer in charge. "A couple of them drifted away from us last night because one of our stupid men did not know how to tie them fast, and we have n't got them back yet. I shall have to send this boat back, because it is needed on some of the other piers. The men at the caisson have a boat that we can get to shore with when we are ready."

Before the day was over, Mr. Davidson had occasion to regret, sincerely, that he had sent that boat back.

The day was an unusually warm one for the first of March. No one seemed to notice the heavy black clouds that, in the early afternoon, sprang up in the west, until, suddenly, the sun was obscured and a gale of wind arose.

"Look there, Davidson!" cried Mr. Barto. "We had better get away from here. This looks like a pretty bad shower for so early in the season."

"Here, Mike," called Mr. Davidson, "the boat! We want to get ashore ahead of that storm."

"Can't be done," said Mike. "Look there!"

A sheet of rain was sweeping down the river upon them. "Guess you are right, Mike. We 'll take to cover here until the shower is over."

They had barely reached the shelter of the workmen's shanty when the storm broke. It was a veritable cloud-burst. The lightning and thunder were almost incessant, and the pouring water was driven by a hurricane. For an hour the storm continued without a sign of abating.

"Looks as if we would be marooned here all the afternoon," growled Mr. Davidson. "Why, I never saw it rain harder in my life. Suppose we try the boat, anyway; I don't mind a wetting."

"I am not so anxious as that to get ashore," returned Mr. Barto.

Another hour passed. The river was rising rapidly. "Seems to be a lot of ice coming down, Mr. Davidson," remarked Mike.

"You 're right," said Mr. Davidson. "We can't wait any longer. The warm weather and this storm have set free a field of ice. We had better hurry off while we can."

Mike went down the ladder and jumped into the boat, while the four others made ready to follow him. The wind had abated somewhat, but the river was swirling madly past the caisson, bearing enormous slabs of ice that crashed against the light trestlework on which the working platform was supported, and threatened to smash it.

Just as Mike stepped into the boat an unusually large chunk of ice bore down upon it.

"Look out!" yelled Mr. Davidson.

Mike turned, but too late to save the boat. The ice struck it and crushed it against the piles like an egg-shell. Mike was thrown into the water, but he managed to reach the ladder and climb up to the working platform.

"Guess you 'll stay out here a while longer, Mr. Davidson," he remarked. "Me for the engine-room to get dry."

"Why, this is serious!" exclaimed Mr. Barto. "Look at all that ice bearing down upon us. Is there no other boat around?"

"No," replied Mr. Davidson. "All we can do is to signal to shore for help."

"How in the world are you going to do it?"

The derrick engineer stepped out with a megaphone and began hallooing, but his voice did not carry very far. The storm and the river were making too much noise, and, besides, every one had taken shelter from the rain.

After an interminable wait, a man in oilskins sauntered out on the old bridge where he was within hailing distance, to see what was wanted.

"A boat!" cried Mr. Davidson, excitedly. "A boat, that is what we want. Ours is smashed."

"It is too late now," interrupted Mr. Barto. "No rowboat could navigate this ice-strewn water. Look at that solid field of ice. What we need is a tug. Is n't there one around here?"

"No, not within fifty miles."

"Why, how did you get this barge-load of stone and concrete down here?"

"In the usual primitive way used hereabouts," explained Mr. Davidson. "We hauled the barge up the river and floated it down-stream to the caisson. A tug is a curiosity in this region."

A few minutes later, a rowboat put out from shore. The two engineers and the two boys were not the only ones who watched its progress. There was an interested group on shore, and the workmen on the caisson, too, realized that this

was their only chance of getting away before the ice cut off their escape completely.

For a time the rowers made good progress, dodging the ice cakes very skilfully; but they could not play that game forever. Before long

It had stopped raining, but things did not look any brighter. The ice was running by in an almost solid field, banging against the caisson, piling up against the light trestlework, crunching, and grinding, and making a most deafening noise.

It was rather terrifying to the boys, although neither would admit any fear.

"Looks to me as if the storm was letting up," exclaimed Perry, hopefully. "I guess the river will quiet down now."

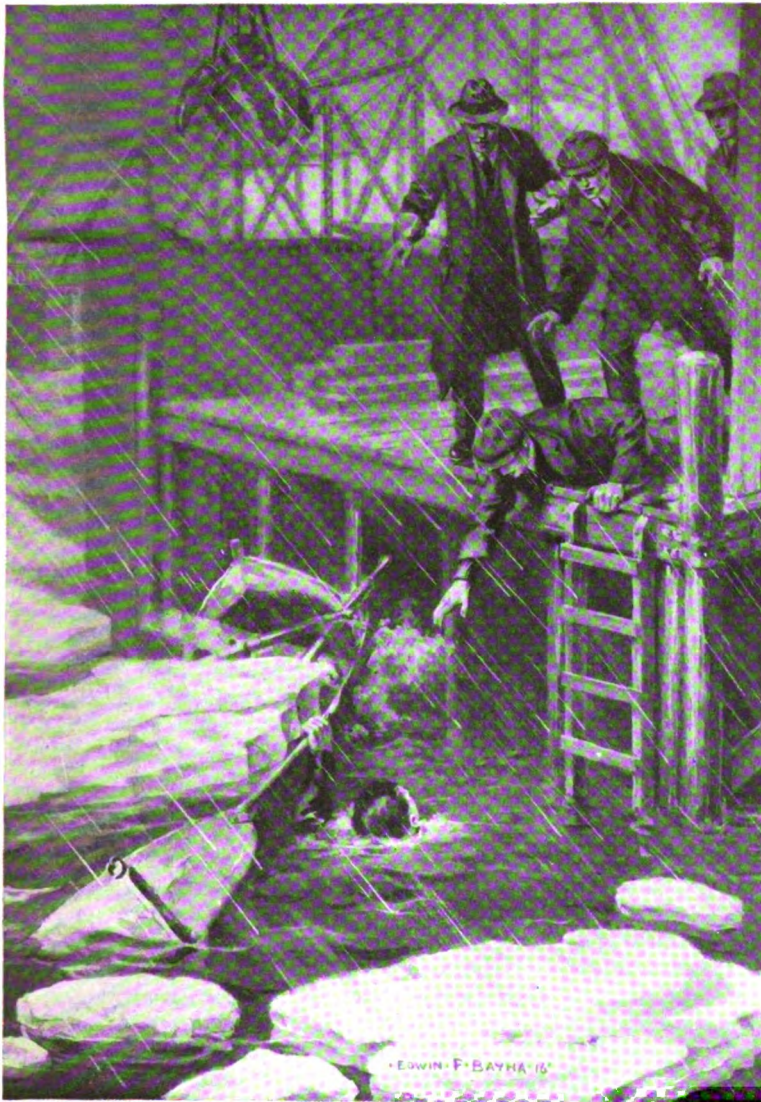
"It has taken more than this storm," growled Mr. Davidson, "to raise the river so high. There must have been other rains farther up-stream; besides, this sudden thaw must have set free a lot of water that has been held in storage all winter in the form of snow and frost. But it is n't the water that concerns us. It's the ice. As long as it runs by, we'll have to stay here."

Night fell, and the stars came out to look upon the prisoners on the little island in the river of ice. As for the prisoners, they merely gazed helplessly, speechless and fascinated by the sight of the stream of grinding masses that bore down upon them and crashed against the piles beneath them. All hope of immediate rescue had been abandoned. They had begun to plan for a long siege. The derrick engineer and his assistant each had a full dinner-pail, which they generously offered to share with the rest. By common consent it was agreed to fast that night and save the food for the morning.

In time Jack and Perry grew drowsy, and Mr. Barto sent them into the shack, where they soon fell asleep despite the jar and thunder of the ice.

About two A.M., Mr. Barto aroused them and hurried them over to the caisson.

"It is no longer safe here on this working platform," he explained. "The wind has been driving some enormous masses of ice toward this side



"THE ICE CRUSHED THE BOAT AGAINST THE PILES
LIKE AN EGG-SHELL."

the boat was caught by a field of ice and was borne helplessly down-stream.

"There goes our last hope," declared Mr. Davidson. "If Donovan had only known something about sailors' knots, we would not have lost those boats last night, and we would n't be in this predicament now. Heaven only knows when we will get away from here."

of the river, and they threaten to smash our piles to pieces."

The men huddled together on a narrow platform built across the inner and outer shells of the caisson. The sky was overcast now, and only a lantern did its feeble best to dispel the gloom. But the crunching, grinding thunder of the ice, punctuated by powerful crashes that fairly made the timbers tremble beneath them, apprised them that the onslaught against their stronghold was still on. And so the endless night dragged along.

Then day broke; but it brought no new hope, for the weather was milder than ever. There seemed not the slightest chance of a freeze, nor the vaguest possibility that the supply of floating ice would ever be exhausted. The working platform was still standing, despite the attacks it had endured all night, and now that it was light the men ventured back upon it again.

Hunger was beginning to gnaw on the besieged garrison, but, by common consent, the fast was continued a little longer and the store of food saved for a later date.

Some men came out upon the old bridge and tried to megaphone over to the caisson, but it was well-nigh impossible to hear anything above the noise of the ice.

"The only man with any sense in the whole gang," grumbled Mr. Davidson, "is down on his back with a fever. We can't expect any intelligent action from that crowd."

"I have been watching this ice rather closely for the past hour," said Mr. Barto, "and I have noticed a thing or two that looks rather promising. There must be a sand-bar over there. Do you see how the ice seems to pile up? It is n't so very far from there to that pier," pointing to the old bridge. "Once, a few minutes ago, there was a jam of ice all the way across for about a minute, and then it broke away again. Now there is just the chance that a jam might form there long enough to clear the water around us and let us get away. There, see that!"

An unusually large ice-floe ran aground on the sand-bar in such a way that the following blocks piled up on it instead of pushing against it. A buttress of ice was soon formed that stood up stanchly against the current.

Time after time large masses of ice would form a momentary chain all the way across from the bridge pier to the ice buttress, but the chain always broke. It was tantalizing to see the ice keep building up there, only to give way almost as soon as formed. Nevertheless, there was some hope of success, and the watchers on the caisson were cheered to observe that the men on the bridge had hauled over a couple of boats and had

them suspended ready to be launched the instant that opportunity offered.

It was well along in the afternoon when an unusually large sheet of ice came sailing down the river. It reached across the entire span between the ice buttress and bridge pier. Best of all, when it struck, the forward end tilted upward, while the rear dipped under water, making a shelving beach on which the following masses of ice instantly piled.

"It's a jam," cried every one, excitedly. "Now if it will only hold ten minutes."

The men on the bridge pier dropped the boats into the river and paid out the lines they were attached to, letting them float down toward the caisson. In another minute the boats had reached the caisson, and it did not take long for every one to pile in.

Now they faced real peril. They had to be drawn up-stream, through the lane of comparatively clear water, right up toward that towering ice jam. If that broke, nothing could save them.

Steadily the ropes were hauled in by eager hands, while the men at the oars worked frantically. It was a desperate chance. Before them rose the ice barrier, now fifteen feet high, but looking five times as high to the men in the boat. How long could the ice stand the strain? Would not the wedging action force the buttress off the sand-bar and let down thousands of tons of ice upon them? It only took a few minutes to cover the space of open water, and once the bridge pier was reached, the men scrambled out and clambered up with the agility of monkeys; but scarcely had they reached safety when, with a report like that of a cannon, the ice jam broke, and the big blocks hurled themselves with redoubled violence against the stanch caisson.

"Lunch is served, Dan," shouted the derrick engineer to his assistant, and the two sat down then and there on the pier, to gobble greedily the contents of their precious dinner-pails that had been guarded so carefully through all the trying hours. At the word the rest of the men broke and ran for the nearest restaurant. It was a cheap little chop-house, ill provided for the demands thus suddenly imposed upon it. In half an hour it had been swept as clean of food as if it had been visited by a plague of locusts.

CHAPTER VIII

RIGHTING A TILTED GRAIN ELEVATOR

"I MAY be all twisted in my geography," declared Perry, "but I cannot for the life of me make out why we have boarded a north-bound train to go to New York."

"We *are* headed a few points off our course," admitted Mr. Barto. "In fact, the route we are going to take may be a thousand miles longer, but there is something up in Canada I want to see."

"What is it?" chorused Perry and Jack, eagerly.

"A grain elevator," announced Mr. Barto, with a peculiar smile.

"Is that all?" sniffed Perry, plainly disappointed. "We have seen lots of them, have n't we, Jack?"

"But have you ever seen the inside of one?" asked Mr. Barto.

"N-no," reluctantly admitted Perry. "I know how they work, though." He had seen many of those big tower-like structures with massive grain bins alongside. Mr. Barto, himself, had explained how the grain is emptied out of the cars by power shovels—shovels that can easily be pushed into the car by hand and buried in the grain, but which are automatically drawn back by power machinery as soon as the hand releases them. He had been told all about the course of the grain from the pits under the cars to the receiving hopper at the top of the workhouse, whence it is fed to the weighing hopper and then delivered through a system of spouts either to the working bins in the workhouse or to conveyers that carry it to the storage bins in the bin-house. Yes, Perry felt he knew about grain elevators. "Is it the biggest elevator in the world?" he said.

"Oh, no," answered Mr. Barto; "and yet it is big enough. The storage bins are ninety feet high. There are sixty-five of them, each fourteen feet four inches in diameter, and, because they are cylindrical, there are diamond-shaped spaces between them, which are also used to store grain. These are called 'interstice' bins. Altogether the bin-house will store a million bushels of grain."

"Whew! That's a lot!" exclaimed Jack.

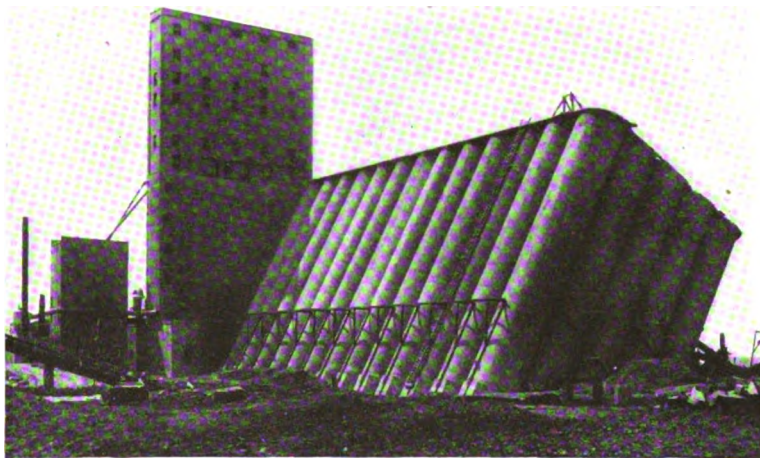
"Quite a bit," agreed Mr. Barto. "It takes about eighty thousand acres to grow that much wheat; but that is n't such a very large part of the wheat grown in this part of the world, to say nothing of the corn, rye, maize, and so forth."

"But why are we going up into Canada to see a grain elevator when there are lots of them right here in the United States?"

"Because I happen to have a special interest in this particular elevator," replied Mr. Barto. "It is built of concrete, you know. The walls are six inches thick, and it is pretty heavy—about twenty thousand tons for the bin-house alone. It rests on a floating foundation—"

"Floating?" echoed Perry; "a new kind, isn't it?"

"Not at all," replied Mr. Barto, "particularly out there. The ground is a good stiff clay, and it is customary to put down a big slab of concrete, a 'mat,' as they call it, that distributes the weight over a broad area. That's the kind of a foundation that was put down for this elevator,



THE TILTED GRAIN ELEVATOR, SEEN FROM THE EAST.

and it was expected that the clay would give a little and let the building settle a bit. And so, when the bins were first filled, care was taken to distribute the grain evenly in all of them, so that the building would settle evenly. Just as was expected, when the bins were nearly full of grain, the structure began to sink, and it went down about a foot in an hour. Then the unexpected happened. Instead of sinking evenly, the building began to tip toward the west. Slowly, very slowly, it careened. The men were helpless to stop it. Twenty thousand tons is quite a mass to stop, no matter how slowly it is moving. I tell you, a man feels mighty small when he has to contend with such giant structures, even if they are made by him.

"All night long the sinking continued. A little after midnight the bins were leaning over so far that parts of the cupola, or frame structure that covered the top of the battery of bins, slid off and fell to the ground with a mighty crash. But still the settling continued. Strange to say, it

was only the battery of bins that settled. The workhouse, which was carried on a separate concrete mat, was not harmed. If that had gone, with all the costly machinery it contained, the loss would have been great indeed. At the end of twenty-four hours the mammoth structure came to a halt at last. The bins were leaning over at an angle of nearly twenty-seven degrees. The foundation on the west side had sunk twenty-nine feet, while the eastern edge of the foundation had been lifted up about five feet above the normal level.

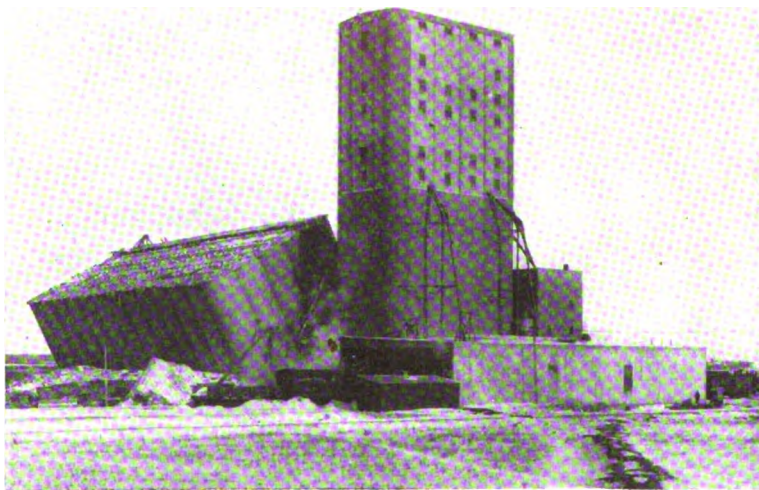
"The first thing to do was to take care of the

"It was water, was n't it?" queried Jack.

"Well, that had a good deal to do with the settling, but not the tipping. Borings showed that the ground was made up mostly of blue clay forty feet deep, and below that there was a layer of soft white clay with boulders in it; then came a layer of broken limestone that lay on bedrock fifty-five feet below the surface. But here is the queer part of it: everywhere else around there the bedrock lay fairly flat, but right under the east side of the bin-house there was a ridge of boulders sticking up about five feet above the rest of the rock, and into the white clay."

"But what did that have to do with it?"

"Simply this," explained Mr. Barto. "As there was less depth of clay there, the ground could not yield as much over the ridge of boulders as the ground at the other side, and that started the building tipping. The more it tipped the greater became the weight on the west side and the less on the east side. The clay just flowed out from under the bin-house and threw up a big earth wave about five feet high. Work was started just as soon as possible on new foundations for the workhouse, because nobody knew when that might start to tip, too. The job of putting down



THE GRAIN ELEVATOR SEEN FROM THE WEST.

grain, and so they dug holes through the concrete walls and placed a conveyer under the holes to catch the grain and carry it to a pit at one side, from which it was elevated and loaded into cars. A conveyer, you know, is a belt with buckets on it that scoop up the grain and carry it along. After the bins on the west side had been tapped, holes were cut through to the next row, and so on until all the bins had been tapped. The grain that was below ground level was taken out by the regular conveyers in the basement of the bin-house which ran to a pit, and then an elevator carried the grain up to the conveyer that had been rigged up outside of the bin-house.

"It was a risky business, unloading the bin-house, because of the fear of upsetting the balance of the structure and starting it to tipping in some other direction."

"But what made the bins begin to topple over?" asked Perry.

"Something away down in the ground, forty feet below the surface," answered Mr. Barto.

the foundations to rock was undertaken by the Canadian branch of our company, and that telegram I received yesterday was an order to go and consult with the engineer in charge of the work and see how things were progressing."

When the party arrived at its destination a couple of days later, the boys were astonished at the sight. They had been told that the bins were tilted to an angle of twenty-seven degrees from the vertical, and yet they were awe-struck at the spectacle before them. A tree or a pole could lean over at such an angle without impressing them particularly, but to see an enormous structure like this balanced on one edge was startling indeed. It looked as if it might topple over any moment.

Mr. Abbe, a young assistant engineer, took the boys around for a general survey, while Mr. Barto spent his time with the chief engineer.

"It is certainly going to be an awful job straightening up that bin-house," remarked Jack.

"Yes," said Mr. Abbe; "but it was a much more

perilous job putting in the foundations under the workhouse. We started doing that several months ago, and they are nearly finished now. It was ticklish work, because we did not know when the buildings might tip over and crush the workmen in the wells they were digging. There was such

"When are you going to start righting the bin-house?" asked Perry.

"We have already started. In fact, the bin-house is moving now." Perry and Jack both gazed at the leaning building. It seemed as motionless as the Sphinx.

"I don't see it move," Jack declared.

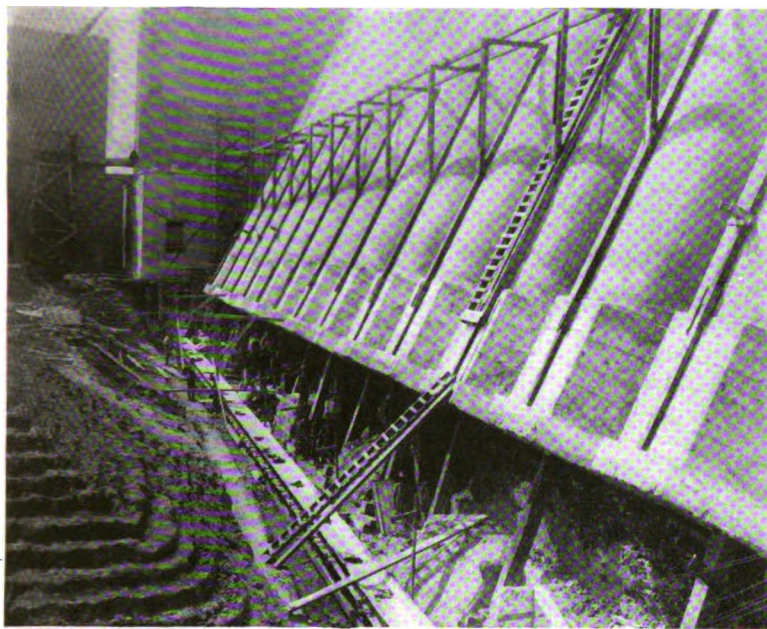
"Maybe you don't," said Mr. Abbe, "but she is moving just the same. Yesterday she moved about three inches. To-day she is doing better."

"Have they got jacks under the lower edge?" inquired Perry.

"Oh, no," said Mr. Abbe; "we are not trying to lift the low side. We are simply letting down the high side."

"But then your bin-house is going to be on a lower level than before," protested Jack.

"Yes, but what of it? It is simpler to rearrange the conveyers and elevators than to



DIGGING AWAY THE EARTH FROM UNDER THE UPTILTED EDGE OF THE BINS.

a lot of water, and we had to work in awfully cramped quarters."

"But why were you digging wells there?" asked Jack.

"Why," explained Mr. Abbe, "we had to dig down to rock and then build up concrete piers from the rock up to the workhouse."

Mr. Abbe took the boys into the workhouse and showed them a wire hanging from the top of the building. Attached to the lower end of the wire was a heavy weight submerged in a tank of water, and there was an electric coil in the tank to keep the water from freezing in cold weather.

"See that?" said Mr. Abbe. "That's a pendulum. We keep the pendulum bob in water so that the wind cannot disturb it. Every day we measure the position of that pendulum to see whether the building is tipping."



OPERATING THE JACKS AT THE "K" PIERS.

try to raise twenty thousand tons. And I assure you you would realize how heavy the building is if you had seen the condition of the clay under it. All the water had been squeezed out of the white clay, and it was so hard that we actually had to use a pick on it."



A QUEEN OF TOYLAND.
FROM THE STATUETTE BY HENRY LINDER.



A PORTRAIT. PAINTED BY LYDIA FIELD EMMET.

THE SAPPHIRE SIGNET

OR, THE LASS OF RICHMOND HILL

BY AUGUSTA HUIELL SEAMAN

Author of "The Boarded-up House"

CHAPTER XV

SARAH TAKES A HAND IN THE GAME

CORINNE came rushing home with the girls next day. Margaret, who rather expected her, had been waiting in considerable impatience, and not a little secret dread, for her arrival.

"Girls," she panted, throwing aside her wraps, "it 's all right! I had the loveliest time telling Father all about it last night! You 've no idea how perfectly *absorbed* he was in the story! He was like a boy listening to a pirate yarn! I read him all the translation of the journal that Margaret made me, and he was just about wild when it came to the end so abruptly. He thought, with me, that it was best not to take the original from here, because you never can tell what accident might happen to it, carrying it around, but he says he ought to see it at once.

"And, do you know, he said we 'd done very clever work indeed, in puzzling out what we had of this mystery all by ourselves! I was so proud! And he said, also, that Alexander deserves special credit for the work he did in finding the secret beam. It is n't every boy who would have had such a good idea. He says Alexander is going to make a bright man, and a prosperous one, too, some day! Where is that youngster, by the way? I want to tell him!"

"Oh, he has n't come in yet!" exclaimed Margaret, hastily returning to the main subject. "But tell us, Corinne, what else did your father say?"

"Well, I have n't half told you yet! To begin with, he says that we have really stumbled on something very valuable indeed—just as I told you! This journal ought to make one of the most interesting additions to the curiosities of history that have come to light in many a long day. And he says he should n't wonder but what it would be very valuable from the money side, too. There are people and institutions that will pay hundreds and hundreds of dollars for rare manuscripts like that, if they 're genuine! And there 's no doubt but what this is genuine, all right! And he says we *may* be able to think out where the signet was hidden, too.

"But, first of all, he wants very much to see the journal, and, of course, he must come here for that. He wanted to come and call on your

mother some afternoon very soon. But I told him that was not possible, because your mother is away at business all day, and anyway, your mother was n't a member of the club, and perhaps you would n't want to explain the whole thing to her just yet. So he said he would telephone to her to ask if he might stop in here with me some afternoon; and he called her up this morning about it. She said she would be very glad to have her girls meet the father of such a dear friend of theirs. Was n't that lovely of her? If you all are agreeable, he 's coming day after to-morrow, because he happens to have that afternoon free. He will meet the twins and myself at high school, walk down with us, and be initiated into the Antiquarian Club. He says that being shown that wonderful journal ought to constitute a sufficient initiation ceremony, and I agreed with him! Now, what do you say?"

Margaret agreed unhesitatingly, yet in her secret soul she was filled with just the same consternation that she always felt in being called upon to meet a stranger. But she tried to school herself to the ordeal by reminding herself how easy it had been to make the acquaintance of Corinne. The father of so lovely and wonderful a girl ought surely to be no more difficult to meet. Corinne had brought light and pleasure and manifold interest into her drab little existence. Might not the father do the same? Thus she argued with herself as the time slipped by, till at length the day itself dawned that was to bring a new factor into her life.

"Wheel my chair over to the bookcase, please, Sarah!" she commanded that afternoon, when she had been made ready to receive company in the parlor. "I 'll read, I guess, till the girls come. Corinne may bring her father to-day, so could you have something kind of nice to eat, Sarah dear?" The woman gave her an odd look.

"Always that Corinne!" she grunted jealously. "Ye be fair daffy over that gur-rl, I do believe! An' now her father 's comin' wid her! Why is she bringin' him? I ain't got refreshments fur the likes of them!" She muttered and growled herself out of the parlor, but her remarks gave Margaret no uneasiness. Too well she knew that, though Sarah might fuss and fume over some

imagined imposition, she would ascend later with the daintiest of trays and serve the same maligned company with food fit for the gods! So Margaret contentedly settled herself to wait and pass the time by giving the curious old journal one further inspection.

Meanwhile, the day's session at high school came to an end, and, at the gate, Corinne and the twins found Mr. Cameron awaiting them. Whatever mental picture the twins may have had of Corinne's father, they found it very little like the reality. At once they were captivated by his twinkling blue eyes, his crisply curling, slightly gray hair, his friendly smile, and the thoroughly charming way he had of crinkling up his eyes when he laughed. They liked, too, his big, deep voice, his fine, tall, athletic-looking frame (and they wondered how he could be ill so often, when he *looked* so robust), and the jolly way he had of laughing at his own or other people's remarks. No longer did they wonder at his being such a chum of his daughter's, for before they had gone three blocks, he had become as interested in their accounts of basket-ball as though that game were the chief occupation of his existence.

But it was when he came to talking of their wonderful mystery that he showed to his best advantage, in their eyes. Alexander himself could not have exhibited a more thrilling interest in the whole affair than did Mr. Cameron. And as they proceeded down Varick Street, he branched off into talking of other historical associations connected with the neighborhood; told the most fascinating little anecdotes, pointed out hitherto unnoticed nooks and corners of odd shape and architecture, and explained the probable reason for their existence. So enthralling was his conversation that they reached their own corner almost before they noticed it. Just as they turned down the street, however, they encountered Alexander. After the renewed introduction, Mr. Cameron voted that they all have a look at the former site of McCorkle's stable, and that Alexander should point out the exact location of the secret beam, long since removed to give place to iron subway-girders.

This naturally captured the heart of Alexander, and before they returned to the house, he was fairly ready to worship, in his boyish manner, this remarkable specimen of a grown man who seemed equally interested in baseball, Indian wigwam-building, hockey, skating, and boy affairs of all descriptions. But Alexander would sooner have been torn limb from limb than confess this worship to the girls!

At last they all approached the house, went up the stoop, and waited while Bess opened the door

with her latch-key. The girls thought it rather strange that Margaret was not sitting in the window, waiting to wave to them as she always did, but they concluded that she must have had a fit of shyness, because of the new visitor, and had remained behind the curtains. In the hall they called gaily to her, and were again a little surprised to hear no response. Then they all entered the parlor.

To their utter astonishment they beheld Margaret, huddled in her chair by the bookcase, her eyes wide and frightened, her face bearing plainly the marks of recent tears.

"What is it, Honey?" cried Corinne, the first to spring forward. "Are you feeling ill?"

"No," murmured Margaret, almost inaudibly.

"Well, here 's Father!" went on Corinne. "You must welcome the latest member of the Antiquarian Club, Miss President! And don't be afraid of him, for he knows you very well!" Corinne said this in a tone of forced gaiety, thinking that perhaps Margaret was really frightened at the prospect of meeting a stranger. Her father shook the little outstretched hand cordially, said some pleasant things of a general nature, and then plunged at once into the important subject of the day.

"Now you must initiate me, Miss Margaret! Show me this wonderful thing you clever people have unearthed! I want to see it so badly that I could hardly sleep last night with expectation, and that 's no exaggeration! It 's the real truth!"

To the utter astonishment of every one, Margaret burst suddenly into wild tears.

"It's gone! It's gone!" she sobbed. "It is n't there any more!"

"What do you mean, Honey?" cried Corinne, rushing to her and trying vainly to hush the child's hysterical weeping. "It can't be gone! What 's happened to it?"

At this the sobbing came with renewed violence, and it was several minutes before Margaret was able to whisper the one word:

"Sarah!"

"What about her? Do you want her to come up?" inquired Bess. Margaret frantically shook her head.

"Childie," said Corinne at last, very gently, "try to calm yourself and tell us what has happened. You 'll be ill if you keep on like this!"

After a moment, Margaret straightened herself, with a great effort stopped the sobbing, and spoke:

"I know I 'm a silly to act like this, but a terrible thing has happened. *The journal is gone!* I looked for it in its usual place this afternoon,

and—it was n't there! I had n't taken it out for several days, and I knew the rest of you had n't either. I could n't imagine what had become of it, and I did n't like to ask directly, of course. So I called Sarah up and asked her if she 'd been cleaning the bookcase, because I missed something. She gave me just one queer look. Then she said no, she had n't been cleaning, but if I was looking for that old rubbish I kept back there, I need n't look any more, because she 'd taken it all out and—*burned it up!*" Margaret sobbed afresh at the memory.

"*Burned it up!*" shouted every one in a chorus of consternation.

"But why under the sun should she *do* such a thing?" demanded Corinne, indignantly. "Even if it were n't valuable, it seems to me simply cruel in her to destroy anything she knew you were interested in and prized! I can't understand it!"

"Did she say anything else?" asked Bess.

"No," added Margaret. "She just stalked out of the room and downstairs. She seemed awfully mad about something. And I was so stunned I could n't say a thing. But I just sat and cried and cried till you all came in."

"This all seems very extraordinary!" began Mr. Cameron. "And it is the more so to me, because I have always understood Corinne to say that this Sarah was devoted to all of you, especially to Miss Margaret. As Corinne suggests, it would appear simply wanton cruelty in her to deliberately destroy anything she knew her favorite prized. Maybe there is something we have n't understood. Perhaps the woman has n't really burned the thing up—is only trying to tease you. Would there be any objection to our seeing her, and perhaps putting a few questions?"

"None at all!" declared Bess, though she secretly felt that there might be many. And with some very uncomfortable qualms, she rang the

bell that Margaret always kept by her side. In two minutes they heard the heavy footsteps of Sarah on the basement stairs, and in two more she had opened the parlor door and stood before them.

"Is anything the matter?" she inquired as her hostile glance swept the room and its occupants.



"'YOU MUST WELCOME THE LATEST MEMBER OF THE ANTIQUARIAN CLUB, MISS PRESIDENT!'"

But they all noticed that her manner lacked its usual assurance, and that she was decidedly ill at ease.

"We were wondering if you could explain what became of Miss Margaret's papers and blank-books," began Mr. Cameron, constituting himself spokesman. "She tells me you have removed them. They are rather interesting, and I had come to-day on purpose to see them."

At this Sarah uncorked the vials of her wrath.

"Ye do well to be askin' afther them dur-rtly owld bits of paper filled so full wid ger-rms they was probably fightin' to hang on! I told her I 'd bur-rned them up, an' I told the truth. If she don't get the typhoid-new-mon-i-ay, it won't be fur want of hangin' over them mouldy rags day afther day! I been watchin' her, an' don't ye fergit it! She ain't been well this month past—even fur her. I guess she ain't told ye I 'm up wid her the better part of every night wid the pain in her back! Even the dochter don't know what 's the matter wid her, she 's ailin' so much worse lately. I ain't watched her all her life fur nuthin', an' I been watchin' her closer than ever lately, though she did n't guess it. I usually come up them stairs like a rhinoceros-horse—I know that! But I *can* come up pretty soft when I choose—an' take the time! I seen her draggin' these things out from behind the books, an' shovin' 'em back if she thought any one was comin', an' breakin' her poor back bendin' over 'em, studyin' 'em 's though they wus made of gold! An' I says to meself, this has got to stop! So I jest took 'em out the other day an' burned up the whole clanjamfray of 'em. An' ye kin say what ye like about their bein' interestin',—I don't believe it! The dur-rtly, disgustin' owld rubbish!" And with this final shot, Sarah turned and tramped heavily out of the room, leaving an astonished and speechless group behind her.

The remaining time that Corinne and her father were there was spent in comforting Margaret. There was no denying that Sarah had finally, definitely, and fatally ruined every hope they had cherished of disclosing to the world a new and startling historical discovery. And Mr. Cameron was more bitterly disappointed than he dared to show. But he tried to cheer Margaret as best he could, and when he came to go, he left her with this pleasant consolation:

"Never mind about the original journal now. That 's gone, and no good ever did come of crying over spilt milk! Remember that the mystery remains, just as good as ever it was, and it is still the business of the Antiquarian Club to solve it! I, the latest member, am just as interested as the rest of you. *Some day*—mark my words!—we 're going to fit the pieces of this puzzle together!"

CHAPTER XVI

THE SAPPHIRE SIGNET

MARGARET was far from well, even for her. For two weeks she had been ailing, and appeared weak and listless. Corinne was not very much

surprised on coming in one afternoon to find her no longer in her wheel-chair by the parlor window, but upstairs in bed in her room on the second floor. This had never happened before since the day that Corinne had first visited the little house in Charlton Street, and her heart misgave her as she climbed the stairs with the twins. But she entered the room, assuming a cheerfulness she was far from feeling.

"Taking a vacation in bed, Honey? Well, I don't blame you, in such wretched weather! It was sleeting and freezing as I came in, and the walking is simply abominable. How cozy you are here with another open fire! You seem to have one in every room. I wish *we* did!"

Margaret greeted her with something of her old animation, but presently relapsed into listlessness again. Corinne chatted on for a time, as though nothing out of the ordinary were the matter:

"I 've got some news from the latest member of the Antiquarian Club! He has a proposition to make. He says that when the first nice spring weather comes, he 's going to invite the club to a series of 'antiquarian outings.' They 're going to take place every pleasant Saturday afternoon. He will have a big, comfy automobile come here, and we 're all to pile in,—Margaret in the comfiest place of all,—and we 're going to 'do' old New York—the real, historic parts, I mean. One day we 'll take a run up to Van Cortlandt Manor, and see that place, which was Washington's headquarters at one time. Then another day we 'll do the lower part of the city, and have lunch at Fraunces' Tavern. And, oh! he 's planned a lot of things like that. It 's going to be great fun, I tell you!"

But Margaret failed to be roused to any extent even by this delightful prospect, though the twins were thoroughly enthusiastic. At last, when Bess and Jess had gone downstairs to investigate the refreshment proposition, Corinne determined to fathom, if possible, the curious apathy that seemed so new to Margaret.

"Honey, dear," she crooned, sitting on the bedside and putting her face down by Margaret, "something 's bothering you, and I want you to tell me what it is! Something 's troubling your mind. Can't you tell me about it, dear, even if you have n't any one else?"

Margaret raised herself on her elbow and faced Corinne. "Yes, something is bothering me," she acknowledged, "and no one but you has seemed to notice it. But I 'm going to tell you, Corinne, because I love you, and I have n't any secrets from you. I 'm just worried *sick* because that journal was destroyed! It was my fault.

I'm responsible for it all! It might have been very valuable, and been sold for a good deal of money. And that would have helped Mother a lot, because we're not very well off, and she has to work awfully hard!"

"But, Margaret," exclaimed Corinne, "this is all nonsense! Of course, it's unfortunate that the thing happened, but you can't even blame Sarah, for *she* did n't know it was anything of value, and she thought she was acting for the best, and saving you from getting sick. *Nobody's* to blame! It's just one of those unlucky things that happen sometimes. It is n't as if you or any one else had been *careless* about it!"

"But you don't understand me!" insisted Margaret. "It *was* my fault, because I kept insisting that this thing should be a secret, and nobody else was to be told. It was terribly foolish—I can see that plainly now! And I never should have kept such a valuable thing in such an insecure place. We ought to have shown it at once to your father and let him keep it. Oh, I'll never forgive myself—never, never!" She turned her face into the pillows and lay a long time silent,—not crying, but just in an apathy of self-reproach.

Corinne, meanwhile, argued and pleaded and consoled—in vain. Margaret would neither look up nor respond. And at last, in despair, she exclaimed:

"Margaret, I want to tell you something Father said last night. It may make you feel better about this very thing. He said that even though the original journal was destroyed, that did n't alter the fact that we youngsters had made a most remarkable 'find,' and had discovered a mystery that was well worth tracking to its finish. He says he's proud to be a member of the Antiquarian Club, and hopes you have n't let any one else into the secret. He wants it kept quiet till we've fathomed the riddle, if we ever do! You *have* n't told any one yet, have you?"

Margaret raised her head, at this, with a faint spark of interest. "No, I have n't even told Mother," she said, "because I hated to have her know how near we'd been to finding something valuable, and then disappointing her by saying it was lost. Of course, we've told her all about your father's visit, and she thought he was so kind to take such an interest in us. She said she supposed it was for *your* sake. Sarah has never said another word, even to me, about the things she burned up. I think she's half ashamed of it, and yet feels that she really did right in taking away something that she supposed was hurting me. She's awfully worried because I don't seem so well, and she's almost killing her-

self taking care of me and doing all her other work, too. But, Corinne, did your father say he'd *really* like this all kept a secret still? That's awfully nice of him, and makes what *I* did seem not quite so foolish! I believe I'll feel a little better about it from now on!"

Margaret certainly appeared to improve in spirits after this interview, but still her bodily strength did not return, and day after day she remained confined to her bed. Her mother and Sarah grew almost ill themselves with anxiety about her. The doctor said it was the drain of the winter on her frail system, and prescribed a strong tonic, but even this did not seem to have the desired effect. But Corinne came in one day with news that actually brought a tint of pale pink to the little invalid's white cheeks.

"Father's been doing some tall *thinking* lately," she announced, "and this is the result. He wants me to submit the matter to the Antiquarian Club for due consideration, and would like every member present when I do so. Where are the others?"

The twins and Alexander were promptly gathered into Margaret's room, and Corinne continued:

"This is what Father's been puzzling over. He says that sapphire signet must have been a very valuable thing, and it ought to be found, if there's the slightest possibility of finding it. He knows a lot about precious stones and their history, and he says that a *sapphire* signet, especially an old one, is a very rare thing. The reason is that sapphires are so hard that it's very difficult to engrave them, and so signets were not very often made of them. So, if this signet were found, it would probably be worth a great deal of money. But, more than that, he thinks we owe it as a duty to the memory of little Alison to make some *effort*, at least, to find it and restore it to her descendants or family, if she has any left."

"That's what I've always thought, too!" murmured Margaret, parenthetically.

"Well, he says he's been doing some '*Sherlock Holmes*' thinking, and trying to imagine *where* she could possibly have concealed that trinket. He does n't think she kept it hidden about herself anywhere. She would probably have thought that too dangerous, for she might have been searched. And he can't bring himself to think that she concealed it anywhere about the house or in the grounds,—there would have been such slight chance, in such a case, of it ever getting back to Bermuda, or her relatives ever having a chance to find it. But he did wonder whether it might have been hidden in the secret beam

with the other half of the journal. You would surely have found it, then, would n't you, Alexander?"

"Bet yer life!" replied that youngster, promptly. "If that dinky little do-dab had been in there, yours truly would have cabbaged it all right! I knew well enough it was my last chance at *that* old dump, and I clawed over every square inch of it a dozen times before I rung off. No sirree! it was n't *there*, and you can take your Uncle Dudley's word for it!"

"Then we 'll count that out," went on Corinne. "Father did n't think there was much likelihood of it—only a remote possibility. Then there remain only two other possibilities, and he thinks the most likely one was—the old leather covers of the journal!"

"Oh, why did we never think of it ourselves!" cried Margaret, excitedly. Then, a moment later, with the droop of disappointment to her mouth: "But if that 's so, then it 's gone forever—thanks to Sarah! She had a red-hot fire that day, I know, and the thing would have dropped in the ashes and never been found in the world!"

"But how could the signet have been hidden in the cover?" queried Bess, skeptically. "It must have been rather bulky, and *we* never saw any evidence of such a thing!"

"No," corrected Corinne, "Father says the signet was probably rather flat, and if Alison was at all clever, she could easily have slid it under the lining of one of the covers (which were very thick, if you remember) and pasted it up so it would never be noticed. He says he 's known of stranger things than that being done. Anyhow, he thinks that is the place in which she would have been most likely to hide it. And if she did, of course, we have no hope of ever finding it now. But there 's one other possibility—and that 's our 'last chance!'"

"Oh, what is it?" they all demanded, as she came to a provoking pause.

"*The little hair-trunk!*"

Margaret raised herself in bed and shouted feebly, "Hurrah!" and then added, "But how in the world are we ever to get at it?"

"That 's just the point!" added Corinne. "He says we must devise a way of getting at that trunk, somehow, and since you all are better acquainted with Sarah and her vagaries than he is, he leaves it to you to concoct some plan. If you can't think of *any* other way, we 'd better tell your mother, and have her order Sarah to unlock the attic. But of course that would spoil our secret society, and we won't try that except as a last resort."

"I have an idea!" cried Margaret, suddenly.

"I 'll ask Mother to-night about the trunk, and beg her to let me have it to keep some of my books and things in, because I 've taken a fancy to it. I 'm sure she won't refuse me. And if she orders Sarah to let me have the trunk, Sarah 'll just have to do it!"

They all agreed that the plan looked exceedingly hopeful, and Corinne left for home with the assurance that the trunk would soon be theirs to search from end to end.

But when Margaret came to talk it over with her mother, that night, she met with an unexpected objection.

"Dear heart," said Mrs. Bronson, "you know that I 'd do everything in my power to grant you any reasonable wish, but don't you see that your request is a rather inconvenient one at present? You know that you have n't been really well for some time, and Sarah has been working very, very hard taking care of you days—and nights too, often. She 's very tired now and has been rather ill-humored lately. Now, I don't know just what she keeps in that little trunk, but I 'm perfectly sure that, if I ask her to empty it and change things about in the attic, she won't take it very pleasantly and *may* make an awful fuss! And we can't afford to have her get upset and leave just now, can we, dear?"

Margaret ruefully agreed, and had to be satisfied with her mother's assurance that perhaps, when she got better, and household matters had smoothed out, Sarah might be approached on the subject.

But this arrangement did not at all suit the rest of the Antiquarian Club when they held a solemn council next day.

"Suffering Simpson!" exploded Alexander. "If we wait for that hunk o' misery, Sarah, to get in a good humor, we 'll wait till horse-radish tastes good on your ice-cream! Nix on *that!*"

"Well, what are we going to do, then?" demanded the others, despairingly.

"Just you leave it to yours truly!" announced Alexander. "I 've got a little scheme!"

"Quick! Tell us what it is!"

Alexander gave an impudent wink, and remarked casually: "I 'm going to nose out where Sarah keeps the key to the attic!"

"Splendid!" cried Corinne. "And what then?"

"*Then—*" he finished dramatically, "we 're going to have a grand old meeting of the club some day when she 's out, and rip the stuffing out of that trunk!"

It had seemed a simple thing, when Alexander announced his plan, and every one supposed it would soon be accomplished. But it turned out to be a harder task than even he had anticipated.

With infinite caution he searched Sarah's room and all her belongings when he knew she was safe in the kitchen, and the twins aided him by keeping guard on the stairs. But the key was not there. Next, one night when all the house-

Half an hour later he burst into Margaret's room with a whoop. "Call a meeting of the whole club for next Thursday afternoon—it 's Sarah's day out!" he whispered jubilantly. "I found it!"



"HE BEGAN TO TAP THE INSIDE OF THE TRUNK ALL OVER, CAREFULLY, WITH THE HANDLE OF HIS PENKNIFE." (SEE NEXT PAGE.)

hold was abed, he crept down and inspected every shelf and cubbyhole and possible or impossible receptacle in the kitchen and pantry. Neither was it there. Margaret declared that she knew Sarah did not carry it in her pocket, nor did she appear to have anything hanging round her neck.

"Then that lallypaloozer must have *swallowed* it!" affirmed Alexander, angrily. "But I 'll make one more grand hunt in her room this afternoon, if the twins will help me out by watching the stairs. Maybe I overlooked something!"

"Oh, where, where?" demanded Margaret, scarcely believing it could be true.

"*In the toe of one of her old shoes!*"

On the last Thursday afternoon of each month it was Sarah's custom to go out by herself for three or four hours, leaving the house and Margaret in charge of the twins. This was the only outing she ever took. On the day in question it was understood that Corinne and her father (who insisted on being present at this important

meeting) should arrive at three-thirty—after Sarah had gone, or she might, on seeing them, change her mind and stay home! Alexander was then to filch the key from her shoe, open the attic, and, with the help of the twins, carry the trunk down to Margaret's room.

Everything worked smoothly. Sarah departed as usual, Mr. Cameron and Corinne arrived, tingling with excitement, Alexander opened the attic, and the wonderful old trunk was at last deposited in triumph before Margaret's bed. They turned out the family's summer flannels carefully, that no spot or wrinkle on them might in future disturb the equilibrium of the uncertain Sarah, and examined the false bottom with an actual thrill to think that here, in this very spot, poor frightened little Alison was wont to conceal the telltale journal.

But when the false bottom was removed, there appeared no trace of a jewel (as they had all secretly hoped there might be) nor any crack or

crevice where it might be concealed. The old-fashioned lining was absolutely intact. Margaret gave a little sigh of disappointment, but Mr. Cameron remarked:

"Don't be discouraged! We have n't finished yet!" And he began to tap the inside of the trunk all over, carefully, with the handle of his penknife. Then, suddenly, they beheld him open the knife and skilfully slip up the figured lining far in one corner. In another second he had inserted his fingers in the opening and was feeling about eagerly. The next moment he laid something in Margaret's lap, with just this quiet remark:

"At last, Miss President! *The sapphire signet!*"

There was an instant of amazed silence. Then, at an indistinct sound from downstairs, Bess uttered a horrified cry:

"Merciful goodness! Sarah's come back already! What *shall* we do!"

(To be continued.)



THE WOODLAND REPAIR-SHOP.

THE RIGHT WAY TO CAMP OUT

BY PETER JOHNSON

UNLESS you arrange and care for your camp properly, your fun will be spoiled. Do not think that camping out is something any one can do simply by pitching a tent somewhere and sleeping in it. All this sounds rather alluring and "wild-life" like; but if water runs in under your tent, if your camp-fire will not burn properly, if mosquitos and snakes and other pests bother you, or if your food spoils and you cannot cook it in an appetizing manner, your camping out will prove a sad and unprofitable experience.

There is really no greater vacation pleasure than living out in the open, especially near a river, lake, or pond, for a week or a month in the summer—provided you know the right way to camp out. And it is not at all difficult to do everything the right way.

The process I will describe is best suited for a party of four boys, but if you have two, or three, or five, you can easily govern yourself accordingly. I began camping out with three chums when ten years old, and never missed a summer until I was twenty. Now I go whenever possible, and the things I learned when a youngster enable me to go through a week or two of this most delightful form of vacation without a single unwelcome incident to mar the pleasure.

The first thing to do is to select your site for the camp. Use a tent whenever possible. Living in an old cottage or a bungalow is not camping out at all for young folks, it does n't seem like living out of doors. The thrill of the tent-home is lacking; the delights of cooking over a camp-fire and eating off a rough plank table can never be equaled by cooking in a kitchen over a stove.

I always found an A-tent of heavy canvas

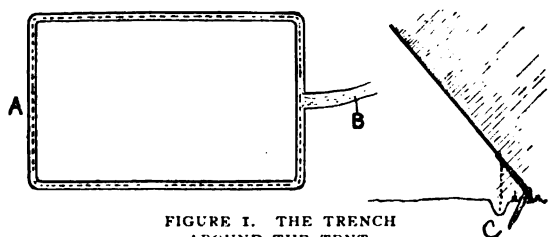


FIGURE 1. THE TRENCH AROUND THE TENT.

A, opening of tent; B, drain; C, cross-section of drain showing drip from the edge of the canvas.

(sometimes called duck), only seven feet by seven feet, the best to use, because it is easily carried about and provides sufficient room for sleeping for four boys, together with shelter for clothes

and other belongings. But unless the tent is thoroughly waterproofed, or you have a modern oiled-silk tent, which is too expensive for most of us, a "fly" is needed. This is merely an extra cover over the tent, stretched so that from the ridge-pole of the tent, where it rests, it does not touch the sloping sides of the tent in any place. Rain may beat through the fly, but it will be so finely "sifted" going through this that it cannot beat

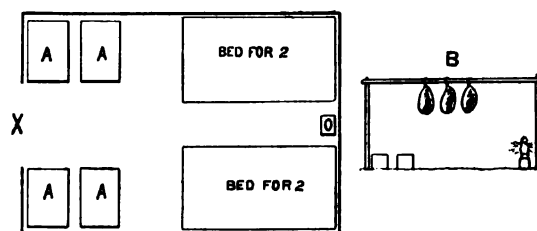


FIGURE 2. ARRANGEMENT OF INSIDE OF THE TENT.

A, A, A, A, duffel-boxes; B, duffel-bags suspended from cross-pole; X, opening of tent; O, box for lantern.

through the tent itself. And again, even the best of canvas will leak in a rain if you happen to touch the inside of it, and then you find a pool of water at your feet or on your clothes, or a drip in your face all night.

The spot where the tent is to stand should be open. Have it as close to the woods as you wish, but so that the sun will shine on your tent. Sunlight is the healthiest thing in the world. It is the best disinfectant. If you pitch your tent under the thick trees, there will always be an unhealthy dampness, and mosquitos will flock in. Then, too, in thunder-storms there is less danger in the open than under trees. The all-important reason, however, for pitching your tent in the open is the matter of health.

Do not put up the tent in a hollow. Water will lodge under it with the first shower. Set it on a little knoll. All this holds good whether you use an A-tent, wall-tent, lean-to, or any other sort of shelter. Once the tent is up in place, dig a drain around it exactly under the edge of the canvas, so that all the water will run off the tent into this drain and be carried away.

For beds, I have found the very best thing is a layer of hemlock branches, using only the smaller foliage twigs, and being careful that no large sticks are in it. Over this, place a layer of pine-needles at least a foot deep. Two boys with a rubber blanket can gather enough pine-needles under pine-trees in twenty minutes for this.

Nothing is healthier to sleep upon than hemlock and pine-needles. Over this bed spread a rubber blanket (one blanket for two boys), and be sure to spread it rubber side down. This prevents dampness from creeping through.

If you are not where you can get hemlock boughs, the small tips of birch, maple, and other saplings will serve nearly as well, and instead of pine-needles, you can use brakes—those giant ferns—or sweet-fern for the soft upper layer.

Place your boxes of camping articles at the foot of your beds, and suspend the bags of clothing from the ridge-pole of your tent. An ordinary lantern is sufficient for lighting the tent at night. You will find that after the first night or so you will turn in and go to sleep soon after dark and be up before sunrise.

Your cooking outfit should consist of steel knives and forks, cheap white-metal spoons (tin and iron ones rust), two big kettles (tin, aluminum, or enamel ware, as iron is too heavy), two frying-pans, two enamel dishes for holding meats and vegetables, an enamel plate for each, and aluminum cups, which serve for everything if they are the pint size—as tea- or coffee-cups, or they are just right for chowders, when you do not need coffee or other drinks.

Never attempt to shelter your cooking utensils in the tent. Rain won't hurt them, nor will exposure. The best plan is to make a "tree-kitchen." Select a good-sized tree near your fireplace. Nail a box on it about four feet from the ground. Put a shelf in the box. You can keep your sugar, flour, and such things in tins in this box. Sometimes two boxes are needed, nailed

to the tree. To protect these food-stuffs from ants and other insects, bring along a quantity of ordinary fly-paper. It is very cheap. Take a sheet and fold it lengthwise, the dry sides together. Nail this below the box, and add more until you have a belt of fly-paper around the tree below and above the box-closets. Then no insects can crawl up or down to your food-stuffs, either over or under the fly-paper.

Below these box-closets and below the fly-paper belt drive tenpenny nails, and on them hang the fry-pans, kettles, and other cooking utensils.

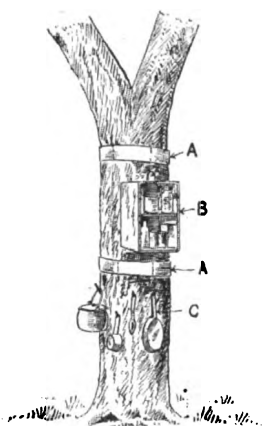


FIGURE 3. THE TREE-KITCHEN.

A, fly-paper bands; B, closet; C, cooking utensils.

They will be off the ground and always handy, nor will they be forever getting lost. It is just as easy to hang them up after washing them as it is to lay them down.

In one box you can keep the cups, plates, and dishes—the round form with flat bottom and sloping sides is best for these dishes. Take a cracker-box, the sort with the paraffin-paper lining, and use it to hold your salt-shakers, chocolate-bars, cocoa, and such things as gather moisture.

Having selected your site, let the entire party put up the tent. The sawed-out wooden tent-stakes are good, but liable to split. If you break them, cut a crotched stick, sharpen one end, cut the other off short, and use that for a stake. After the tent is up, let two of the boys gather the boughs and pine-needles for the beds, while two others make the box-closets on the tree, build the fireplace, and put things where they belong. Then all four may gather the first lot of wood. All this should take only a couple of hours.

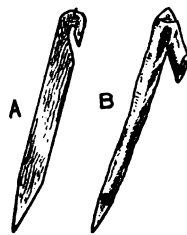


FIGURE 4. TENT-STAKES.

A, sawed-out tent-stake; B, crotched-stick stake.

Another very important thing is cleanliness about the camp, especially about the cooking- and eating-places and the disposal of the garbage. One of my first experiences was rather exciting. We were up in New Hampshire on Lake Winnepesaukee. We carelessly tossed potato-skins, crusts, bits of fish-bones, and other refuse into the lake. Frequently some landed on the shore. Within four days there were literally scores of water-snakes about after that garbage. We did n't dare go in swimming. A couple of skunks paid us a visit and many ground-snakes. We were forced to break camp. At our next camping-place we dug quite a deep hole some fifty yards from the camp and tossed all refuse into it, keeping it covered with a couple of heavy, thick, hemlock boughs, and we had no more trouble, as the hole was more than a hundred feet from the shore. Then, too, as it was not healthy to leave garbage in the open, every two days we tossed a couple of pailfuls of sand over it.

Now for your camp-fire. If you intend to remain in the same place a week or more, it is best to build a fireplace with flat rocks. Lay these in straight lines, like a letter V, with the tip end open fully six inches in order that a draft may rush through. For the open end you may cut crotched sticks of green ash, ironwood, maple, or oak, and place another stick across in the crotches. I know some campers say you should never fasten the crosspiece, because you might

wish suddenly to lift it off with its kettles. But I find this is not good advice. Frequently accidents happen, boys get to fooling, or accidentally knock against the crane, then down comes the crosspiece, and away goes your good chowder, or whatever you may be cooking. Wire the crosspiece in place, and use hooks made of telephone wire bent in the shape of a letter S. You can, by means of a number of these linked together, place your pots and kettles as close to, or as far from, the fire as you wish.

I always carried a crane of my own invention. It was made of ordinary gas-pipe. There were four pieces of pipe and two elbow-joints. I could take it apart, and it then took up very little room. One was a triple joint. Any gas-fitter will show you one. Into two of the threaded ends you screw two equal lengths of pipe for legs. The third opening is at right angles. You screw the pipe used for the cross-bar into this, and then into one of the openings of the double joint. The fourth length of pipe screwed into the other opening makes the third leg. Fire will not harm this, nor will it break, and it is easily handled.

If you are going to remain only a few days in a camp, a splendid cooking-fireplace can be made with a couple of small green logs about three and a half feet long. These are placed, like the stones, in a V-shape with a six-inch space between the tip ends. The big ends should be about two and a half or three feet apart. At the pointed end, flatten the logs with an ax so that you can place the coffee-pot over the narrow end, a small kettle or saucepan next, and the wider frying-pan next.

For the night-fire, drive two green stakes in

toward you and wastes none. The ordinary bonfire is a waste for any except a very big party.

Can you build a cooking-fire? Any one can gather up dead twigs and grasses and start some sort of a fire, but to start a cooking-fire,—one that will hold glowing coals for half an hour or even an hour, long enough to prepare any meal,

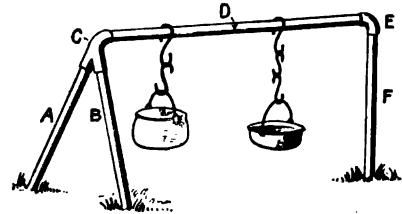


FIGURE 6. CAMP-FIRE CRANE.

A, B, D, F, lengths of gas-pipe; C, E, elbow-joints.

—you must know something about wood. The great mistake most campers make is to gather pine, and hemlock, and other very soft woods, also little twigs of soft woods.

What happens? There is much smoke, a quick hot blaze, and then your coals die down at once and the heat is gone. Remember that you cannot cook very well over a blaze. All cooking should be done over glowing coals—a big bed of them. The only way to do this is to use hard wood, such as oak, red maple, ash, beech (not birch), ironwood, and the like. Gather a quantity of this. Start your fire with leaves and little twigs of soft wood; on these, as soon as they get to burning, pile little *twigs* of dry hard wood; then put on your small *sticks* of hard wood and then the bigger ones. This takes about twice as long as it does to build a fire with soft wood, but your fire will last at least ten times as long.

There is three times as much heat in a bed of hard-wood coals as there is in a big blaze of dancing flames. You can set your frying-pan directly on the coals for quick frying, or rest it just above the coals for slow frying.

Always take two flannel shirts, two pairs of old trousers, two changes of underclothing, three changes of stockings, and two pairs of shoes. A thick, double, woolen blanket—I used my father's Civil War blanket when a boy and later my own Spanish War blanket—is best. It is better than six quilts. If a cold spell comes up, just lay your extra clothing over you, outside the blanket. The wool will keep you warm.

I speak of these things because I do not believe the average boy can get sleeping-bags, pneumatic beds, and all those costly modern camping appliances, nor does he care to pack along any more duffel than necessary.

Every boy should have his own cake of float-

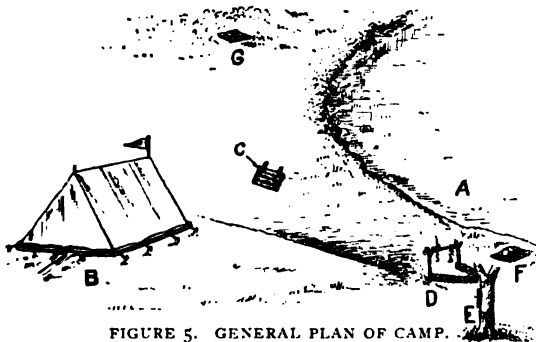


FIGURE 5. GENERAL PLAN OF CAMP.

A, shore-line; B, tent on knoll; C, night camp-fire; D, cooking fireplace; E, tree-kitchen; F, refrigerator-hole; G, hole for kitchen waste.

the ground, slanting slightly back from your camp. This should be within twelve feet of your tent opening. Lay green logs, one on the other, up against these slanting, upright stakes. Then build your fire in front. This makes a reflecting wall which sends both heat and light directly

ing soap, two big Turkish towels, comb (the folding kind in a case that will not break), tooth-brush and paste or powder, and, if needed, a compact safety-razor with the shaving-cream that comes in tubes; pocket-mirror, too, although I have shaved many a morning by leaning over

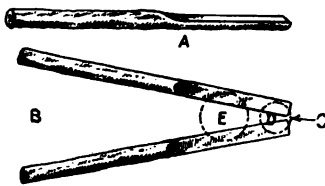


FIGURE 7. EMERGENCY COOKING-FIREPLACE OF GREEN LOGS.

A, flattened end; B, front of fireplace; C, six-inch opening; D, coffee-pot; E, frying-pan.

the edge of the boat and looking at myself in the water.

For emergencies there should be antiseptic bandages, adhesive plaster, Jamaica ginger (boys will overeat sometimes), vaseline

for sunburn blisters, and iodine. To-day it is recognized that iodine is the best antiseptic known. Do not be afraid to apply it freely to a cut or a bruise. It will smart, but it will knock Mr. Germ right out, which is the necessary thing to do.

Take self-raising flour, frying compounds that come in tins, bacon, canned goods, potatoes, evaporated milk, sugar, salt, pepper, onions, and salt pork—for you cannot make a good chowder without salt pork. Also take some of the old-fashioned round crackers or big soda-crackers for the chowders. They are best for between-meal lunches, spread with peanut-butter, and can be prepared in a jiffy. Every healthy boy who is actively engaged in the vigorous life of camping out will find it a long time between meals. He should have something to satisfy this hunger, but not enough to spoil his meals. These peanut-butter-and-cracker sandwiches are just the thing.

Mosquito-netting is cheap, but worth its weight in gold in camp. By throwing it over the front of the tent, and hanging it around the open edges along the ground, you can sleep in comfort. Hang mosquito-netting over the fronts of the tree boxes, and the boxes containing dishes and food, because flies may get in, and flies often live on undesirable things and carry germs.

Look out for your drinking-water. If there is a little mountain-stream quite near, and the water is running freely over sandy bottom, or down over rocks, the water will be safe to drink. But do not drink the water of ponds, or lakes, or big rivers without boiling it. Having boiled it, cover the receptacle with a wet cloth and hang it up in the shade. It will soon become much cooler than the water in the lake, through evaporation of the water on the cloth. This is a most important matter, since there are on record so many

cases of what is known as "vacation typhoid," caused solely by poor drinking water. It is n't much of a task to boil a gallon of water, it cools in a couple of hours, and it may mean the difference between good health and dangerous illness.

Look out for your fires at night. Before turning in see that there is no inflammable material near your camp-fire. I always spread down a two-foot wide path of shore sand around my camp-fire, to prevent this danger. My cooking-fire I generally bed down with ashes, and in the morning I rake these over, toss on a handful of kindlings, pine-cones, and leaves, and on them some hard-wood sticks, and then go for my morning plunge in the lake. By the time I get washed and rubbed with my rough towel, my cooking-fire has become a new bed of coals, and the pot of water that I set on for coffee is boiling. Do not delay your breakfasts, or you may become rather faint. Whenever possible, take a cold plunge in the water as soon as you crawl out of your tent. It will take the sleep and the "kinks" out of you, make your blood tingle, your eyes sparkle, and brace you up for a day of sport.

Use hot water and scouring soap on your dishes. Keep them clean. This means freedom from sickness. It is important. With our party of four we always divided the work in this manner: Monday, two boys did all the camp work—cooking, washing dishes, airing bedclothes, making fires, bringing water, etc., etc. The other two went fishing or did whatever they pleased, doing no work at all. On Tuesday the couple that loafed Monday did all the work, and the



FIGURE 8. THE NIGHT-FIRE.

A, green stakes, slanting back from tent-opening; B; C, method of piling logs; D, fire.

Monday workers loafed. Never ask one boy to do it all alone. Two boys can do it, and still have plenty of time for all sorts of fun. This is a splendid plan, for those loafing days are marvels of pleasure. You scarcely know how to appreciate a really good time unless you have these alternate days when you have absolutely nothing to do except play and eat.

For preserving butter, pork, bacon, canned milk that has been opened, and other perishable foods, carefully dig a hole in the ground close to the shore. Dig down below water-level about a foot. The water will run in. Fill part of this

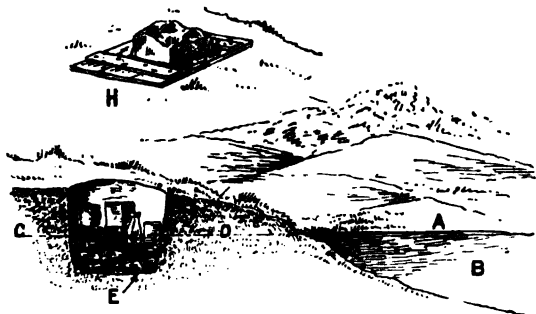


FIGURE 9. REFRIGERATOR-HOLE.

A, water-level; B, shore-line; C, D, water-level in hole; E, rocks; H, weighted board-cover.

with rocks until they stick out, fill the other half partly with rocks, and set your waterproof things on these under-water rocks. Set the other things on the dry rocks. Make a cover with boards and lay over this hole, with a big rock on it so that no prowling animal can get in. This should be in the shade where the sun will not strike it all day—under a big bush is best. In this manner your butter and other perishable foods will keep almost as well as they would in a refrigerator that is cooled by the use of ice.

Always bring a good hunting-knife that is sharp, a good short-handled ax, plenty of nails, plenty of stout cord and small-sized rope for lines to hang clothes on, a short-handled hoe for digging the trench about the tent (also for digging bait), cloths for dish-cloths, needles and thread, and safety-pins.

The chances are that you will be near enough to some farm-house to make a trip every two or three days for a fresh supply of eggs, butter, and, possibly, some good bread. If not, you can get along all right by following directions on your package of self-raising flour, provided you take plenty of potatoes, bacon, canned beans, and such things, and have any skill at all at fishing.

It really does n't matter what sort of a tent you have, or you may camp in a lean-to, but this sort of camping in the open, away from any building, is the best sport, and these suggestions I have made, resulting from years of experience, hold good under almost every condition that the boys of this country would meet.

Camp at least a mile away from human habitation if possible, a half mile distant at least. Camp on the bank of a navigable stream (for small boats), or the shore of a pond or lake, if this is possible, because it is so much more fun being near water, and there is always the fishing. If you do this and follow as closely as possible these general suggestions, you will find health, increased strength, and great joy in camping out.

A BOYS' HOUSE-BOAT CAMP

BY GEORGE E. WALSH

A REAL house-boat built of logs and barrels, with a canvas house or tent on the deck, a house-boat that is perfectly safe in all kinds of weather and big enough to accommodate several boys, a house-boat that costs you little more than the work you put on it to build—is n't that something that will appeal to every healthy, red-blooded boy? Nine boys out of ten would rather pitch their tent on a floating deck in the river or lake than on the shore. Why? Well, because of the lure of the water, and perhaps because of the sense of isolation and protection that comes when the camp is all surrounded by water.

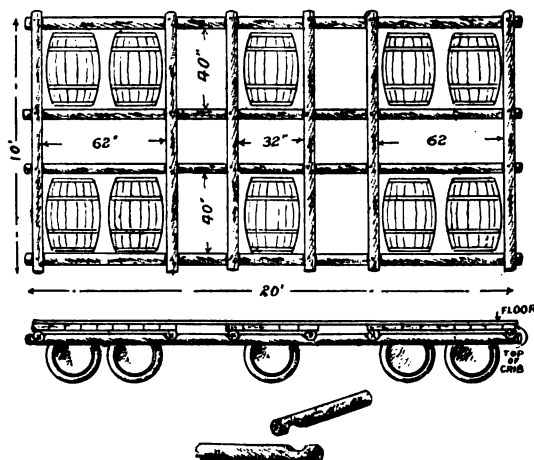
The deck of your house-boat is a float, resting on barrels that have been used for linseed oil, kerosene, turpentine, tar, or varnish. Any empty barrels of this nature will do, and they need no

painting or treating, except perhaps a little tar on the hoops to keep them from rusting. They are water-tight and wonderfully buoyant.

Do you know how many pounds a barrel will support? If you ever tried to sink one, you will have some idea about its buoyancy. An ordinary oil-barrel will support on the average about four hundred pounds. Two heavy men, joining hands across it, could not sink it. Now our float requires ten barrels, which give it a lifting capacity of four thousand pounds. Not much danger of sinking on such a float, is there?

The float is twenty feet long and ten feet wide, which gives ample space for a good-sized tent or house on top with a narrow platform on all sides. If you can find the barrels, or get them cheap from some second-hand dealer, your first cost is

little. Your platform, fitted across these barrels, need cost you nothing. It is built entirely of logs, young trees, or saplings, which you can cut in the woods near your camp. Your longest ones are twenty feet and the short ones ten. You need four of the first and six of the latter.



FRAME SHOWING CRIBS FOR BARRELS; SIDE VIEW OF FRAME; NOTCHED LOGS.

The long ones should be at least six inches in diameter at the butt end, and the lateral ones, four inches. Choose as straight young trees or logs as you can find. When they are cut and trimmed, lay them out on a level place in the position shown in the diagram, and cut notches in the four long ones for the laterals to fit into. The shorter cross-saplings should be notched a little so that the long ones are not weakened too much. The notches should be cut deep enough, with a camp ax, so that, when fitted together, the tops of the logs are on a level. The dimensions for cutting the notches are given on the diagram. Cradles, or cribs, are formed in this way so that the barrels will fit loosely. The ordinary oil-barrel is twenty-seven by thirty-five inches, but the cribs must be wide and long enough so the barrels will have room for moving around.

When the notches are all cut, carry the logs to the edge of the water where there is a shelving beach, and run one end out into the water. Join the ends in the water first, and place the four barrels in the compartments made for them. As the float will be somewhat heavy to lift into the water when finished, it should be built by degrees and floated out.

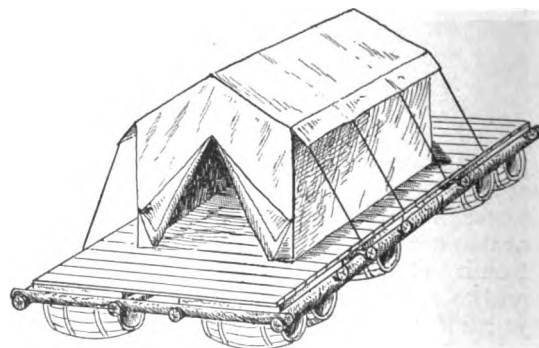
When you have the four barrels in place, raise the end of the crib by resting the ends of the logs on a boat or float, and then proceed to nail down the floor foundations, which may consist of short logs or pieces of joist two by three. These

short strips nailed from log to log down the whole length of the raft will finish off the cribs for the barrels as well as serve as the foundation for the flooring. The barrels float loosely in their compartments, but they cannot escape on account of the weight of the raft.

Shove the half-finished raft out into the water, and then put the middle barrels in place. If the water is shoal, the barrels will roll easily on the bottom, and you can handle your raft without trouble. The shore end of the raft can be jacked up in the shallow water with boxes while nailing the joists in place. Then, with a little push, the whole raft can be floated into deep water. Your barrels are securely held in position, and the float is safe for further work. This can be done on the deck. Finish off the deck with second-hand boards, or you can make the whole thing of rustic work, choosing green wood of the desired thickness. These should stretch across from side to side, and be nailed to the joists which form the upper part of the crib.

The construction of the house or tent on the deck of the float is a simple matter, and one that any boy can do for himself. Simple tent-poles can be put up, and the tent stretched over them, using the side- and end-logs to hold the guy-ropes taut. If a real house-boat is desired, make the framework of saplings and branches, knocking it together in a simple way and stretching the tent on it. The finishing off of the canvas house or tent is a matter for each one to decide according to his own preference.

The framework of logs, besides being notched and fitted together, should be nailed firmly. Three-



THE TENT IN PLACE.

inch wire nails are the best for this. Drive them in firmly so there is no danger of the joints being strained loose. There is little chance of this, for the raft is held together by its own weight as well as by the joints.

The weight of the logs and lumber may amount to a thousand pounds, but, as the ten barrels have

a lifting capacity of four thousand, the margin of safety is still enormous. Suppose your tent and equipment weigh five hundred pounds more, or, to use an outside limit, place the total weight at two thousand pounds. You still have another two thousand pounds for your own weight and that of your friends. Not much danger of sinking, is there? As for capsizing, that is impossible! It could n't be done. You now have a raft or float capable of withstanding any kind of weather. The barrels cannot work out of their cribs without lifting the framework bodily from them, which you could not do if you wanted to as long as it is in the water.

Of course, the barrels must be waterproof. Oil, turpentine, or tar barrels are waterproof unless damaged. The only possible place for them to leak is at the bung. To prevent this, drive the bung in firmly, and then coat the outside with tar.

A float of this size and nature will need at least two feet of water to rest in. On a shelving beach it cannot be brought up to touch the shore, but it can be anchored close to it, and a plank laid across from the shore to its front platform. The ideal way is to pole the house-boat out into

deep water and anchor it. You can either pole the craft along, or tow it with a rowboat on a quiet, windless day. In fact, you can move it to any place on the lake or river, and anchor it securely out from the shore. You will need at least two anchors, one at the bow and one at the stern, and two more ready for emergencies. If a wind-storm comes up, you should cast an anchor at each corner of the raft.

You don't have to buy anchors for this work. Get four round stones that weigh about twenty pounds each. Wrap these in old bagging, and tie your anchor cable to it. Two twenty-pound stones will hold the craft in ordinary weather, and four of them will keep her from drifting in very stormy weather.

In the late summer you can haul your raft up on the beach and leave it there until the following year. Run a rope with a block and tackle around a tree, and three or four boys can pull the raft up easily. When high and dry on the land, put boxes under each corner to take the weight off the barrels, and leave it there for the winter. The following summer it can be launched by rolling it back into the water.

A SURPRISE IN JUNGLELAND



SALESMAN: "THIS COLLAR, I SHOULD SAY, SEEMS ABOUT THE RIGHT HEIGHT FOR YOU."

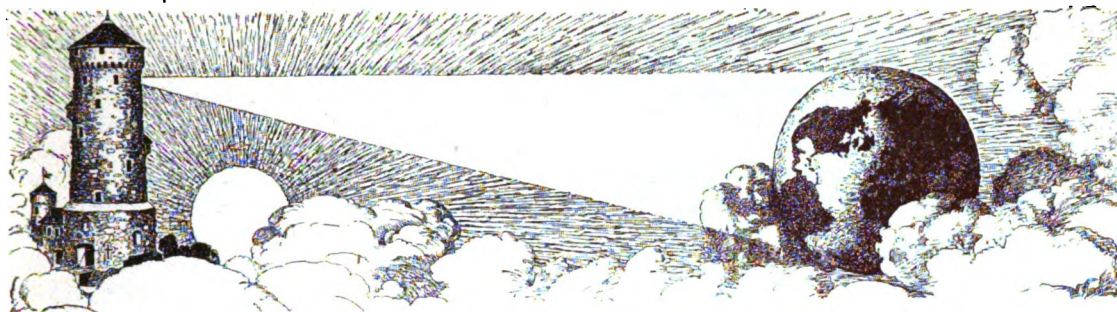


CUSTOMER: "W-H-A-T!"



G.W.

The road runs up
The road runs down
And carries people into town.



THE WATCH TOWER

BY S. E. FORMAN

Author of "Advanced Civics," "A History of the United States," etc.

THE PROGRESS OF PREPAREDNESS

ALL through March Congress continued to struggle with the subject of preparedness. Early in the month the Hay¹ bill was reported favorably by the House Committee on Military Affairs and placed on the calendar. When a bill on its journey through the House reaches the calendar, it is placed at the bottom of the list, and it cannot be taken up for action until all the bills which are ahead of it have been considered or removed. It may be that there are several thousands of bills in advance of it, but that makes no difference; as a rule, it must await its turn. Since this is so, many a calendar bill is never acted upon at all, for its turn never comes! The calendar has been called the "cemetery of legislative hopes," because so many bills lie buried there.

But there are methods by which important bills may be taken from the calendar out of their turn. One of these methods is to adopt a "special rule" for the consideration of a certain bill. This is proposed by the Committee on Rules. It names a day and hour when the bill is to be taken from the calendar, prescribes the length of time the measure shall be discussed, and states the precise time when it shall be voted upon. When the Committee on Rules brings in a special rule, it is usually adopted by the House, for a majority of the members of the Committee belong to the political party which has a majority of votes in the House. The Committee can do this at any time, and as it can thus determine and control the course of procedure in the House, it is a most powerful body; and of all the rules by which the House is governed the special rule is the most important.

After the Hay bill had reached the calendar it

¹ A bill is usually given the name of that member of Congress who is chairman of the committee which reports the measure.

was soon brought before the House by means of a special rule. When the time allowed for debate and for consideration of amendments had been consumed, the measure was passed by a vote of 402 to 2. It was then sent to the Senate. There were indications that the Hay bill would undergo some changes before its final passage, but it seemed likely that the main features of the measure would be preserved, and that it would become the law that is to provide for the kind of defense that our Nation is to have in the immediate future. It provides for a regular army of 140,000 men and a reserve force of about 425,000 men. As far as numbers are concerned, it differs little from the measure proposed by Secretary Garrison. (See WATCH TOWER for April.) But in the organization of the reserve force, the Hay bill differs widely from the Garrison plan. Secretary Garrison wanted the reserve force to consist of volunteers who would join the *regular* army and place themselves under the direct control of the National Government. Chairman Hay wants the reserve force to consist of soldiers belonging to the *organized militia* of the several States, that is, the National Guard. This organized militia, now numbering about 130,000, under the new law is to be more than trebled and is to be trained according to a discipline provided by Congress. In times of peace the enlarged National Guard of each State will still be subject to the orders of the governor, just as it is at present, but, when war breaks out or is threatened, the members of the National Guard of all the States will become soldiers of the regular army, obedient to the authority of the President. That is, the forty-eight little armies of the States will be thrown into the melting-pot, so to say, to be fused into a great national army. Then we shall have a regular army consisting of 140,000 men as our first line of defense, and a national reserve

force of 425,000 men as our second line. Thus, if the Hay bill becomes a law, we shall have in time of war nearly 600,000 trained men available for service.

THE PURSUIT OF VILLA: INVASION WITHOUT INTERVENTION

PRESIDENT WILSON has at last decided to take things in hand and put down the lawlessness which has prevailed for so many months along the Mexican border. When Villa, at the head of a thousand bandits, invaded our country and

Mexico there were popular rejoicings when the news came that the United States was planning to assist Carranza in the capture of Villa. The railroads of Mexico were placed at the disposal of the American troops. It seemed that the Mexicans were as anxious to catch the outlaw as were the Americans. Still, the expedition created a delicate and difficult situation, for as long as American troops were on Mexican soil there was danger of war. The danger was increased by false reports and rumors inspired in some cases, as President Wilson declares, by Americans who own property in Mexico. These property owners



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UNITED STATES INFANTRY IN PURSUIT OF VILLA MARCHING INTO THE WILDS OF MEXICO.

killed nearly a score of American citizens, the President, for a while at least, abandoned his policy of "watchful waiting" and sent an armed expedition into Mexico in pursuit of Villa and his murderous followers. In doing this, the President had no thought of intervening in the affairs of the neighboring republic. He informed Carranza, the President of Mexico, that the Mexican people need have no fear that war would be made upon them or that any portion of their territory would be taken from them. Carranza took our President at his word and joined with him in his efforts to capture Villa and bring him to justice. The action of President Wilson was heartily supported by Congress, and resolutions were passed by that body declaring that the United States did not intend to do anything that would injure Mexico as a sovereign nation. There were fears that the American soldiers would be attacked by the forces of Carranza, but these misgivings seemed to be without foundation. As the expedition proceeded, the friendship and good-will of the Mexicans were shown in many ways. In the city of

desire intervention because they believe it will lead to the conquest by the United States of the portion of Mexico in which their holdings are located, and they know, of course, that their interests will be better protected under American rule than they can be by the weak government of Mexico. After an exciting chase of more than three weeks Villa and his band were still not captured. Nevertheless, our troops pressed forward, following the bandits far into the interior of Mexico.

THE FEDERAL TRADE COMMISSION

BEFORE the establishment of our National Government, business matters of every kind were under the control of the State. But the Constitution of the United States, which went into operation in 1789, gave Congress the power to regulate trade carried on between the States, leaving each State the power to regulate in its own way trade carried on within its own boundaries. After the

adoption of the Constitution, therefore, interstate commerce, which includes all business transactions beginning in one State and ending in another, passed under the control of the National Government. Many years, in fact nearly a century, passed before Congress saw fit to make any great use of its power over interstate commerce. About thirty years ago, however, it established (in 1887) the Interstate Commerce Commission, whose duty is to regulate the interstate business of railroads.

But, as time went on, Congress found that it would have to go farther in the use of its power and provide for the regulation of other things besides the carrying of passengers and freight. It found that business men, when competing with each other, often resorted to unfair methods. So Congress in 1914 established the Federal Trade Commission and gave it power so to supervise the transactions of persons and corporations (excepting banks and railroads, which were already provided for) as to prevent them from using unfair methods in trade. This commission is composed of five members appointed by the President. Each commissioner receives a salary of \$10,000 a year. The commission has its headquarters at Washington, but it will hold its sessions at any place that may be most convenient to the persons interested in a case. The commission hears complaints of business men who are suffering by reason of the unfair or dishonest practices of their rivals. Among the things complained of are false advertising, price discriminations (selling to one person at one price and to another at another price), bribery of employees, misbranding of goods, rebates (reductions from the regular selling price), and the like. Complaints come from business men of almost every class—from merchants, manufacturers, farmers. And what does the commission do with the complaints? If, after investigation, it has reason to believe that a complaint is just, it orders the offending party to desist from the unfair practice with which he is charged. If the offender obeys the order of the commission, that is the end of the matter. If he does not obey, he is liable to be brought before a court of the United States, and if found guilty, to be punished if he does not desist from the unfair practice. It will be observed that there are a good many "ifs" here, and that a great many things have to be done before the wrongdoer can be actually punished for his offense. Thus far, the work of the commission has not resulted in the punishment of any person.

But it is no cause for wonder that the Trade Commission has accomplished little. It has been

in existence only about a year, and its power now is greatly limited. But Congress can increase its power. The great Interstate Commerce Commission at first could do very little, but, as the years passed, Congress gave it more and more power, and at last it was vested with authority to fix even the rates which railroads should charge. It may be that the powers of the Federal Trade Commission will also be increased from time to time, and that some day it will become one of the most powerful agencies of the National Government.

THE VOICE OF BUSINESS IN THE HALLS OF CONGRESS

SEVERAL years ago there was organized at the city of Washington a body known as the Chamber of Commerce of the United States of America. The organization was formed for the purpose of protecting and promoting the interests of all persons, firms, and corporations doing business in the United States. Almost every city has a local chamber of commerce to foster the business interests of the particular community; but before the appearance of the Chamber of Commerce of the United States, there was no organization to foster the commercial welfare of the whole Nation. The new National Chamber, which was organized in April, 1912, took up its work in vigorous fashion, and it quickly grew to be a body of remarkable proportions and strength. It has its headquarters in a large building whose windows look out upon the United States Treasury Building. Nearly fifty men and women are employed in its offices. It has all the money it needs to carry on its work, for it is supported by the contributions received from over 700 chambers of commerce located in all parts of the country. Its total membership represents more than 300,000 corporations, firms, and individuals. This National Chamber of Commerce, therefore, is a big body capable of doing big things. We are already hearing much about it and it is likely that, as time goes on, we shall hear much more.

The chief work of this giantlike organization is to keep Congress informed as to the wishes of business men and the actual commercial needs of the Nation. Whenever a great question arises upon which it is important that the views and sentiments of business men shall be known, the National Chamber submits the question to its members to be voted upon. For example, much fault has been found with a law known as the Seaman's Act, which Congress a short time ago passed for the purpose of securing greater safety for seamen and for those who travel on the sea.

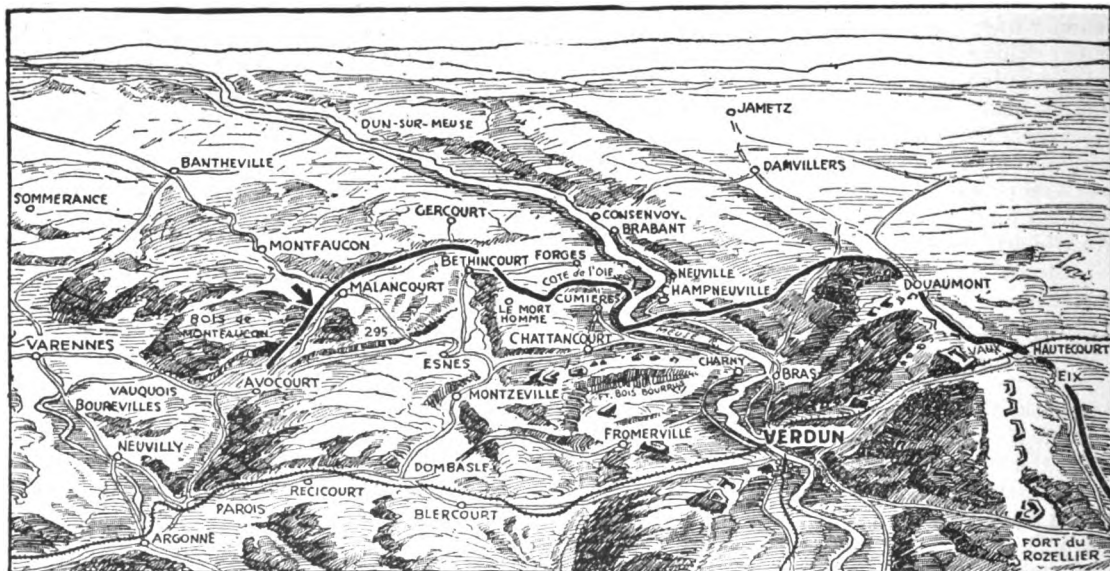
Shall this Seaman's Act be repealed? The National Chamber of Commerce at the present time is submitting this very question to its members. Hundreds of local chambers of commerce and trade organizations and many thousands of business men will vote yes or no upon this question, and Congress will be informed of the results of the voting. In this way the National Chamber causes the voice of the business world to be heard in the halls of Congress. As long as it shall conduct the voting fairly and cause the true voice to be heard, it will perform a most useful and important service. But if it should at any time conduct the voting unfairly and carry false reports to Congress, it would result in serious mischief. For it is plainly to be seen that the powerful machinery of such an organization, working in such a way, can be used for evil as well as for good.

A GREAT WAR-COUNCIL AND A LEAGUE OF PEACE

WHILE the big guns around Verdun were booming, during the last days of March, there was held not far away, at Paris, a war council of all the powers banded against Germany and Austria. Eight nations—Great Britain, Belgium, France, Portugal, Italy, Serbia, Russia, and Japan—were represented at the conference. Never in the history of the world has there been a gathering of men who have represented greater interests than were represented in this council. The territory controlled by their nations amounts to more than

half the entire land surface of the earth, and the people under their sway number more than half of the world's entire population. The meeting was quite generally, and perhaps justly, regarded as the greatest event which has occurred since the outbreak of the war. The representatives came together to agree upon a course of military action by which the combined strength of the Allies may be thrown against their enemy, and to decide upon the terms of peace which shall be offered when the enemy is conquered. For the conference met in a spirit of hopefulness, and every member glowed with the certainty of victory for the Allies. The proceedings of the meeting were not made public, but it is known that harmony prevailed, and that all who sat around the council table were united in the determination not to lay down arms until the Allies shall have imposed their own peace upon Germany. "Let America realize once for all," said one of the most prominent of the representatives, "that the Allies are absolutely determined, absolutely united. However long it takes, however hard the task, there will be no peace until Germany is conquered. That is the message of the Paris conference to the world."

If the Allies shall win, the council of war which assembled in March may prove to be the first step in the formation of a League of Peace. It is generally known that the Allied nations are hoping that the outcome of the war will be to put an end to great military establishments in Europe, and it is believed that the members of the War Council gave the pledge that their governments



Courtesy of the "New York Tribune."

VERDUN AND THE FORTIFIED POSITIONS SURROUNDING IT. (SEE NEXT PAGE.)

will take measures to make such conflicts as the present impossible in the future. In other words, it seems that the council planned not only to bring the present war to an end, but also to preserve the peace of Europe for future generations. If the plans in this direction shall be realized, the meeting of the council will prove to be much more than the greatest event of the present war: it will be the greatest event in the history of Europe.

THE GREAT WAR

THE Great War seems to be bringing but little fame and glory to those who are fighting the battles. We hear much of drives and assaults and sieges, but of individual generals and heroes we hear almost nothing at all. This is strangely different from what it was in the past. Heretofore, war has been the sure road to fame. Our fathers and grandfathers, when reading the news of our Civil War, were thrilled by stirring accounts of the doings of particular men—of Grant and Lee and Sheridan, of "Stonewall" Jackson and Thomas and Sherman. The achievements of these men were heralded from day to day, and by the time the war was over they had achieved a world-wide fame. How different from this it is to-day! We read pages and pages of news of the Great War without meeting with the name of a single commander. You could count on your fingers all the generals who have won renown, and have perhaps two or three fingers to spare.

The reason that war is being robbed of its glory is because it is conducted in such a mechanical, businesslike fashion. Never before have science and invention played such an important part in military operations as they have in this European conflict. The battle-fields are vast, well-ordered establishments resembling factories, in which the officers are the superintendents and the soldiers are the mechanics. Most of the fighting is done with machines. Skilled aviators in aeroplanes perform the task formerly assigned to scouts. The heavily armed automobile does much of the work hitherto done by the cavalry. In place of the rifle is the machine-gun that shoots four hundred times a minute. As the work of

death and destruction goes on, science comes to the aid of the soldier and supplies every possible need. For the wounded there are surgeons and physicians and trained nurses, and near at hand is the fully equipped military hospital. For the hungry there is the field-kitchen in the form of a great box-wagon in which plenty of properly cooked food can be had. In former wars the troops prepared their own food over camp-fires, but in this war they do no cooking.

In the drive against Verdun the machines of death worked all through March with the regularity of a clock, yet at the beginning of April it was impossible to say that either side had won. The onset of the Germans was met by the French with such firm resistance that it seemed that an irresistible force had been throwing itself against



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INTERIOR OF THE KITCHEN ON A FRENCH RED CROSS TRAIN.

a barrier that was immovable and impenetrable. The Germans had gained a few square miles of territory, but the conquest seemed to have cost vastly more than it was worth. While this was going on at the western front, the Russians became unusually active. They assumed the offensive on the long line of the eastern front from the Baltic Sea to Rumania, and any success that the Germans may have won in France was fully offset by Russian victories in Turkey, Poland, and Hungary.

Take it all in all, the situation at the end of the twentieth month remained unchanged; the iron ring which the Allies have forged around the Teutons was still unbroken.

THE CHILDREN OF THE MOORS

(*The Brontë Sisters*)

BY ARIADNE GILBERT

Author of "More Than Conquerors"

THE English skylark nests on the ground, but soars so high that it is only a speck and a voice in the far-away blue. Some of our great writers have been like that, starting in the humblest homes, but reaching a heaven in their singing flight never dreamed of in their first nesting-places. Speaking of the Brontës, Thackeray exclaimed: "What a story is that of the family of poets in their solitude yonder on the gloomy Yorkshire moors!"

One hundred years ago, on April 21, 1816, Charlotte Brontë, the best known of three famous sisters, was born at Thornton, England; but the home the world remembers as hers is the one at Haworth. She was not yet five years old when, in the winter of 1820, her father and mother brought her and their five other little children to the stone house on the bleak hill. Imagine the excitement of the Yorkshire neighbors and their children when seven carts, heavily loaded with furniture, toiled up to the new parson's door.

At this time Mrs. Brontë was very delicate, and she grew weaker with the coming of spring. Her oldest child, Maria, only six or seven, was already taking responsibilities and helping with the younger children in numberless ways. When the tired mother died the next September, the small Maria tried as well as she could to be a mother in her place, and would lead the others (six little children taking hold of hands) to their great wonderland—the moors. Instinct seemed to tell her that this was the best nursery she could find for so many babies, some of them barely able to toddle and constantly picked up and helped on by the others. Winter fringed the crags with ice; spring glorified them with golden primroses (soft bunches of sunshine for little hands); and summer offered a daily concert of throstles, larks, and linnets.

About a year after Mrs. Brontë died, one of her sisters, Miss Branwell, came to live at the parsonage to help with the housekeeping and the children. She seems to have been a faithful aunt, with considerable real affection for her nieces and nephew, but, in the eyes of the children, rather prim and exacting. She did not like Yorkshire. She complained bitterly of the winter winds which fought around the parsonage as if they would tear it to shreds. To keep her feet

off the cold, stone floors, she clicked about the house in pattens. While deep snow heaped the moors with drifts of white, she sighed for balmy Penzance and its lovely gardens. Now, children as keen as the Brontës could not fail to realize, at least the older ones, that "Aunt" had left Penzance for their sakes. They loved the moors, with all their bleakness; but they could not make the bluebells and heather come back before their time, nor fill the empty nests with song. The best they could do was to accept the routine established by Aunt's strict commands, though I suppose they did not love it any better than other children. When they grew old enough to learn, Miss Branwell turned her bedroom into a school and taught them there at regular hours. At other hours they sewed and cooked and swept, growing unconsciously into fine housekeepers. Aunt ate with the children when she was well enough; their father regularly had his dinner alone. Just before bedtime they assembled for family prayers.

In such a childhood as this there was little place for play—no dancing, no pranks, no games except the quiet ones the children themselves invented. Instead, they walked alone on the moors, told stories, or sewed. Two samplers show the work of their little fingers. "Maria Brontë finished this Sampler on the 16th of May at the age of eight years," says one. "Elizabeth Brontë finished this Sampler the 27th of July at the age of seven years," says the other.

Reading was one of the chief delights of the children and was the foundation of most of their games. One winter evening when they were sitting around the fire in Tabby's kitchen, Branwell exclaimed:

"I don't know what to do!"

"Wha, ya may go t' bed," was Tabby's short answer.

"I'd rather do anything than that."

"Why are you so glum to-night, Tabby?" said Charlotte. "Oh, suppose we each had an island of our own!"

Then, in quick succession, the children chose their islands, and soon peopled them with John Bull, Walter Scott, the Duke of Wellington, and other heroes. So it was that much of the fun the children had together lay in their absorbing love

of books and in the harmony of their active imaginations.

In July, four years after the Brontës moved to Haworth, the two oldest girls, Maria and Elizabeth, were sent to a boarding-school at Cowan's Bridge. The next September Charlotte and Emily joined them, though Charlotte was only eight, and Emily, "a darling child, quite the pet nursling of the school," only six. Though several people say that "Jane Eyre" greatly exaggerates the poorness and the scantiness of the food at Cowan's Bridge, by far the best idea we can get of this school is from the life at Lowood in that novel. When the little Brontës went there, the school was not fully established, and it may be that provisions were better later on. In contrast to modern boarding-schools with sunny rooms in blue-and-white or rose, soft couches deep in pillows, and walls hung with photographs and banners, the girls here slept in one long room, with beds in rows like a hospital ward, two sleepers in each bed. Though their parents paid a small sum for their care and teaching, somehow the girls felt like charity-children. The food was scarcely better than at Squeers's school in "Nicholas Nickleby." The breakfast at Dotheboys Hall was a strange, brown concoction "like diluted pincushions"; at Cowan's Bridge it was often burnt porridge. Accustomed as the little Brontës were to the simplest possible fare—potatoes, milk-pudding, Scotch porridge (shared with their dogs), and seldom any meat—they had always had food that was dainty and well cooked. Often here at school they could not even taste what was set before them. Let us peep into "Jane Eyre" and see what the place was like. Eighty girls, in coarse brown dresses all alike, are studying by the scant light of candles and trying to whisper their lessons into their brains. "Monitors, fetch the supper-trays!" interrupts a teacher.

The older girls rise, glide from the room, and return, carrying large trays. No chocolate with whipped cream, no little fancy cakes with pink or orange icing. In the middle of each of these trays is a pitcher of water, a plate of broken-up oat-cakes, and a thick mug common to all.

Helen Burns in "Jane Eyre" is Maria Brontë. Poor *Helen*! None of her faults went unno-

ticed. The girls to-day would say her teachers nagged her.

"Burns, you are standing on the side of your shoe; turn your toes out immediately." "Burns, you poke your chin most unpleasantly; draw it in." "Burns, I insist on your holding your head up; I will not have you before me in that attitude."

To only one teacher did *Helen's* grasp of her lessons—her real brilliancy—appeal as a virtue offsetting untidiness. Miss Temple really loved her, and her tea with toast and seed-cake



THE PARSONAGE AT HAWORTH.

came like a benediction into her life. There were many moments when Maria Brontë might have been setting a bureau drawer in order which she spent in reading hungrily, or perhaps even in dreaming of home—the dear north country of England and the little brook bubbling its way through Deepden. There was a brook, bless it, at Cowan's Bridge, and sometimes the Brontës would stand on stones in the gurgling water to watch it. I suppose it reminded them of home.

But they were soon to be released from their prison. A low fever broke out in the school. In the spring, when flowers were beginning to peep in the grass by the brookside, Maria grew suddenly ill—not with the fever that was spreading among the other girls, but with something else. She was hurried home early in the next May, only a few days before she died. Her ten-year-old sister, Elizabeth, a year younger than Maria, soon developed the same strange illness, and she, too, was sent home to die in only a little over a month.

This left Charlotte, at nine, as head of the family in brave Maria's place, though, of course, Aunt Branwell considered herself mother-superior and Tabby—their faithful old servant—offered opinions on all subjects. Why Mr. Brontë, after such a bitter experience, sent Charlotte and Emily back to the same school the next fall, no one knows; but fortunately, before many months, he realized that it was too damp there for safety, and they were allowed to return home.

Five years slipped by. Warm fires in winter kept the children snug from snow and wind. There were plenty of books, and Tabby was a tireless listener to their stories and a tireless teacher of housework. But evidently Mr. Brontë was not sure this education was sufficient; and so when Charlotte was fourteen, he sent her to Miss Wooler's school at Roehead. It was the middle of January. As cold at heart as she was in hands and feet, the lonely girl, in queer old-fashioned clothes, stepped from a covered cart into the strangeness of a new school. Though there were only eight or ten other pupils, I suppose—like the Mary who wrote her first impressions—they all studied the new-comer, perhaps laughed at her.

"She looked a little old woman, so short-sighted that she always appeared to be seeking something, and moving her head from side to side to catch a sight of it. She was very shy and nervous, and spoke with a strong Irish accent. When a book was given her, she dropped her head over it till her nose nearly touched it, and when she was told to hold her head up, up went the book after it, still close to her nose, so that it was not possible to help laughing."

Queer as the little stranger looked, she probably felt queerer still. She knew no grammar whatever, and almost no geography. She did not play ball. She did not fish. But she knew by heart many of the poems that the others were just learning, and she understood them far better. She loved her lessons with Miss Wooler, who was so fine a teacher that she made her pupils go beyond the set tasks, either from love of learning or eagerness to please.

What Charlotte learned at Miss Wooler's she tried during the next few years to pass on to her two younger sisters. From nine till half past twelve she taught or drew. Then all three girls walked on the moors. From dinner till tea-time they sewed. It was a monotonous routine, but just such as met with their aunt's approval.

In the summer of 1835 Charlotte went back to Miss Wooler's as a teacher, and Emily went with her as a pupil. Whatever homesickness any of the Brontës had endured up to this time was multiplied fourfold in Emily's liberty-loving

heart. Each day, during her three months' exile at Roehead, it seemed to grow worse; she was literally sick from home-longing. One of her poems tells the ache of it:

There is a spot, 'mid barren hills,
Where winter howls and driving rain;
But, if the dreary tempest chills,
There is a light that warms again.

The house is old, the trees are bare,
Moonless above bends twilight's dome;
But what on earth is half so dear—
So longed for—as the hearth of home?

Emily could not bear it! Her illness threatened consumption, and she was sent home to the one doctor in the world for her—the moors. There they were: the heather, "the moor sheep feeding everywhere," the winding paths made by their wanderings,

The distant, dreamy, dim blue chain
Of mountains circling every side.

Their own child had come back to them. Emily grew better immediately.

Ellen Nussey, Charlotte's dear friend who visited the Brontës during the next summer, tells us that on the moors Emily's nature changed from somber to gay. There, she was a child in playfulness. Those who read her masterpiece, "Wuthering Heights," forget for a few moments its immense power and brutality and find themselves wondering whether *Cathy* was not the kind of child Emily would have liked to be had heaven excused her from stitching samplers and blessed her instead with a galloping pony that answered her whistle like a dog.

"Oh, I should like to be riding Minny down there! I should like to be climbing up there!"

There are few pages in literature more rollickingly glad with summer than her description of the pleasantest way to spend a hot July day "rocking in a rustling green tree," cool breezes swaying the moor-grass, and the whole world full of singing birds.

Charlotte must have done duty as a parson's daughter immeasurably better than Emily. She must have been a kind of priestess in the neighborhood, knowing her father's parishioners in that intimate sort of way that leads people to tell how the hens are laying, or to ask cures for the children's toothaches. Even at long distances she was known and called by name. One day, away off on the moors, an old woman met her and called out, in her rich Yorkshire dialect: "How! Miss Brontë! Have yah seen aught o' my calf? Yah know, it's getting up like now between a cow and a calf—what we call a stirk, yah know,

Miss Brontë; will yah turn it this way if yah happen to see 't, as yah 're going back; nah do, Miss Brontë." For years, Charlotte poured tea and passed toast with a parson's daughter's patient faithfulness, politely listening to the empty formalities of countless curates. Meanwhile, Emily, who could be shaped to no mold, sought outdoor freedom, and, while Charlotte graciously offered a fourth cup of tea, would dart into the house and out again without speaking. She had



Courtesy of Houghton Mifflin Company.

CHARLOTTE BRONTË.

(From the drawing by George Richmond, 1850.)

an appointment with her four-footed friend, Keeper, where the gray crags met the sky and the bluebells "clouded the hills with a lilac mist."

Though Emily had no patience with social conventions, she shirked none of the housework; and though she studied German while she kneaded the bread, she turned out the prettiest and lightest loaf of the family. She tried to do her share, too, when, as the years went on, the poor parson's daughters saw that they must help with the family expenses. Though none of them loved teaching, it was possible and respectable, and so we find them as teachers in several different "situations": Emily, for six miserable months at a school in Halifax, Yorkshire ("hard labor from six in the morning till eleven at night with only half an hour of exercise between"); Charlotte and Anne trying their skill as governesses. Their pride suffered fearfully in these positions, for they were looked on almost as servants.

Poor girls, tossed about to so many different places! Whenever they had a chance, they were rare home-makers—considerate of their aunt and father, kind to their servants, warmly knit in love to each other. The talented Branwell, their only brother, might be called the family shadow, except as a shadow weighs nothing, and he was the heavy load of their lives. Much had been sacrificed for him to study art; but he had failed, not only practically but morally, and returned home to live in idleness. He drank; he took opium; he kept the family in constant fear.

Another problem, much less serious, was faithful old Tabby. A few days after the Christmas of 1837, she fell on the ice and broke her leg. Miss Branwell, with her plain common sense, urged them to send the old servant, who was now between sixty-five and seventy, to live with a sister; she would never be useful again and would be a great care and expense. But the loyal girls would not hear of such a thing. Tabby was a regular member of the family, and they would not abandon her now. They had adjusted themselves, with the years, to her increasing helplessness. When she grew deaf, Charlotte had gone with her to the moors to shout the family news, which Tabby insisted on hearing; when she grew too blind to see the eyes in the potatoes, Charlotte had cut them out herself (but only when Tabby was not looking). When Martha, who came to help Tabby, was sick, she was cared for with the same faithfulness.

Other members of the family were their happy pets: a hawk, a canary, a little cat, and the three dogs—Tiger, Flossy, and Keeper. In the deep snows of February the outdoor birds were remembered, and the redbreasts hopped to the Brontës' windows for their never-forgotten crumbs.

Emily's passionate love for animals sometimes got her into trouble. Almost any dog could "snoodle" his way into her friendship. One day when she met a strange dog with his tongue hanging out thirstily, she offered him a drink of water, only to be rewarded by a spring and the maddened grip of his teeth. With her usual Spartan grit, she walked straight to Tabby's kitchen and burned the bitten place with a hot iron before she said a word to any one. Another day she had to discipline her beloved bulldog, Keeper, —the great savage fellow who used to lie beside her while she read, sitting on the hearth-rug like a boy, with one arm around her hairy comrade's neck. But Keeper had one fault—he would lie on the beds. Emily had been warned that if she ever whipped him, he would spring at her throat. Yet he continued to choose the fairest counterpane as his rightful resting-place, without either

wiping his feet or taking off his shoes. Of course Emily was blamed for his sins, and the wrathful Tabby was tried beyond bearing. And so Emily promised that the next time he trespassed she would teach him a lasting lesson. The dreadful day came. Half in fear and half in triumph, Tabby brought the news that Keeper was snoozing, with his usual assurance, on one of the snowy beds. True to her word, Emily dragged him by the scruff of his neck out of the room and down the stairs to the hall, where, with her bare fist, she struck him across his fiery eyes, blinding and stunning him so that he did not spring. It was a conquest of will and anger and love, followed by tender nursing at Emily's own hands, and sealed by Keeper's everlasting devotion. At her funeral, he lay in the pew at the family's feet, and he never, never could be comforted.

But once more in their lifetime Charlotte and Emily had to tear themselves from the dogs and home and so much that was dear. In the winter of 1842, with the hope of sometime having a school of their own, they went to Madame Héger's, in Brussels, to study foreign languages. Charlotte's wonderfully written novel, "*Villette*," which vividly pictures this school, has the distinction of being so true that some of the people who found themselves in the story complained of little changes in facts quite as if the whole world knew it was a personal record.

When the girls were called home the next October by their aunt's death, though they both grieved truly for the cause of their sudden journey, Emily was not sorry that it meant Haworth for her for the rest of her life. In a few months, however, Charlotte, happier in Brussels than her sister had been, returned there to teach English.

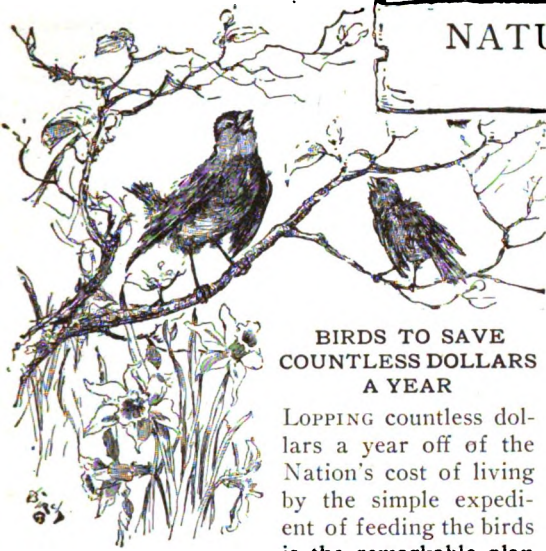
The last educational scheme, of which they had all thought from time to time,—to turn the parsonage into a school,—failed completely. Not one pupil applied. "Getting pupils," Charlotte said, "is unlike getting any other sort of goods."

But after all, the Brontës are not chiefly known either as homesick school-girls or as teachers. While they struggled bravely to learn and earn, their active minds worked along another line. Four years after they first went to Brussels, at their own expense and with small effect on the world, they published a book of poems, all three girls contributing. They wrote under the assumed names of Currer, Ellis, and Acton Bell, keeping their own initials only. Charlotte was Currer; Emily, Ellis; Anne, Acton. When their three novels were published the next year, they kept the same names, and, to the world, "*Jane Eyre*" was written by Currer Bell; "*Wuthering Heights*," by Ellis Bell; "*Agnes Grey*," by Acton

Bell. Sometimes the girls had considerable fun over the reviews, for many of the critics judged from the power of their work that they were men—the Bells must be three brutal brothers! Meanwhile, three slender sisters hovered over their home fire, enjoying the secret shared only with each other. They had written without their father's knowledge. After he had left his study, given his useless warning, "Don't be up late, children," as he passed the dining-room door, wound the clock on the stairs, and disappeared, they had begun to pace the floor in the freedom of solitude, talking over their plans together. When, printed and bound and favorably reviewed, "*Jane Eyre*" was first shown to Mr. Brontë, he imagined that it was new also to Emily and Anne. "Girls," he said, "do you know Charlotte has been writing a book, and it is much better than likely?" No news to them! The union between the sisters was beautiful. Charlotte almost adored Emily. "I think Emily seems the nearest thing to my heart in the world," she said; and, "Stronger than a man, simpler than a child, her nature stood alone." Indeed it did; and no one really knew her, though Emily made a special pet of quiet little Anne, and confided in her, perhaps, as much as in any one.

When, in less than a year, between September and June, Branwell, Emily, and Anne all died, leaving Charlotte alone, with the old father, the old servants, the heartbroken, puzzled dogs, and the ticking clock, the desolation seemed indeed unbearable. She had borne much already. For years she had seen her father growing blind and being led into the pulpit to preach; and the very day her novel "*The Professor*" was refused, she had strengthened him through an operation for cataract. But now there seemed no light ahead for any one. "I avoid looking forward or backward, and try to keep looking upward," so she mustered her bleeding courage. Success as an author, a few shy glimpses into the literary world, friendship with Harriet Martineau and Mrs. Gaskell, an awed meeting or two with the great and adored Thackeray and the cordial grasp of his big hand as it took her little one—all these sparkles of pleasure she had had; but these were the best things for which she had dared to hope. She did not know that steady love was waiting. Yet her few months of married happiness with Mr. Nicholls were among the sunniest of all her life. Into the lonely house, and even to the old father who had once opposed him, he brought a new hope. And Charlotte? She was like a bird in the same moorland nest she had known so long. Only her sky seemed bluer and nearer, and there was a new gladness in her almost-forgotten song.

NATURE AND SCIENCE FOR YOUNG FOLKS



BIRDS TO SAVE COUNTLESS DOLLARS A YEAR

LOPPING countless dollars a year off of the Nation's cost of living by the simple expedient of feeding the birds is the remarkable plan

put into operation by a Chicago man.

Charles E. White, grain broker during his business hours, and bird protector during his leisure, is the head, shoulders, and, in many instances, financial backer of the movement. His plan contemplates the saving of all insect-destroying birds, which, if successfully carried out, would result, according to officials who have made a study of the subject, in the saving of one billion dollars' worth of grain and food-stuff that otherwise is destroyed each year. In other words, he purposes to make the feathered denizens of the fields and woods dividend-earners.

That sounds a bit funny, does it not—placing a wren or a nuthatch or a lark in the wage-earning class? Yet that is precisely the position they and others of their kind are supposed to occupy in their relations to the White bird-paradise out in the deep woods of Kenilworth, Chicago.

There is no way of determining their actual earning power aside from the conclusions reached through extended observation. But there is no doubt that the feathered friends of the Chicago Board of Trade broker will make good, with a comfortable margin to spare, and that the example they set will serve as an inspiration elsewhere, until the movement becomes nation-wide in its scope.

Which brings us to the practical side of bird conservation.

While Mr. White has always cherished a warm regard for birds of all kinds, has cultivated their friendship and sought to induce them to stay on his place the year through, his underlying purpose was to make them useful, as well as ornamental, through the protection they would fur-

nish the crops by their unceasing warfare against insect pests, whose ravages prove so costly to the public. Certainly he is far-sighted to study the very thing which exerts a powerful influence over his business.

That is the real secret of the White bird-sanctuary. It is not so much a hobby to be ridden to death, as a step in the direction of common-sense treatment of one of the great economic problems which confront the Nation; an attempt to restore nature's balance between the bird and insect worlds, which was established years before the greedy saws of woodmen, the murderous firearms of hunters, the toys of small boys, and the vanity of women denuded the forests and all but exterminated some species of our birds. Census-takers of the bird population declare that a large percentage of the forest birds that once inhabited the woods of the country have been greatly reduced in numbers because of these enemies.



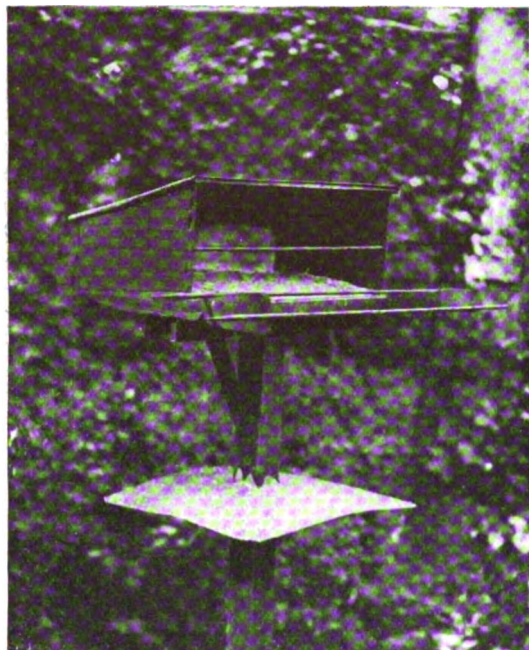
SWUNG ALOFT.

(A bird-house made of an old herring-kit.)

When the conservation of bird life is referred to as one of the greatest economic problems with which we have to deal, that statement carries with it indisputable proof that the subject is

so great that few have any conception of the extent to which this country would benefit if this same procedure could be made general.

The national debt of the United States is, in round figures, \$1,040,000,000, or something over ten dollars per capita.



A WEATHERCOCK BIRD-HOUSE.

(Vanes, extending from either end, catch the wind and so keep the entrance turned away from it.)

By stopping a single leak, this entire amount could be wiped out in two years, with enough remaining on the right side of the public ledger to give every man, woman, and child in the country five dollars.

There have been any number of years when, it is estimated by competent authorities, a loss of more than \$900,000,000 has been inflicted on the crops of the country by insect pests—a matter of nine dollars levied on every person in the United States over and above what would have been necessary had the ravages of these insects not taken place.

Now, nobody interested in the conservation of birds is sanguine enough to believe that this tremendous loss which the Nation suffers annually will be entirely wiped out. Mr. White entertains no such hope, and he is the embodiment of optimism. There will never come a time, probably, when codling-moths, and locusts, and potato-bugs, and other pests that seem to spring up from nowhere and leave a trail of desolation in their wake will not exist to a greater or less extent.

We have always had them, and there is little likelihood that they will ever become sufficiently rare to arouse curiosity.

But consider what a change would be wrought, what benefits would result from the elimination of a fraction of this waste. Even one quarter of this amount is \$225,000,000, a right tidy sum even in this age of swollen fortunes. And there is no telling how much further the good work could be carried, until, with proper attention, it might finally come within hailing distance of the complete destruction of the industrious little pests that feast off the fat of the land and make the head of every household pay the price of their depredations.

The theory of those who advocate bird conservation is that, if birds are present in any given locality in sufficient numbers, they will prevent the excessive increase of those insects on which they feast. The number of birds need not be large, proportionately, for they have an almost incredible capacity for insects; and singularly enough, the young birds in the nest are more ravenous than their elders.

Cases are common where birds have been observed to eat half their weight in worms and insects in the course of a day, and it is a matter of record that a young robin ate nearly twice its weight in cutworms and earthworms in a like period.

Insect-destroying birds are called the "police of the air" by Henry W. Henshaw, chief of the United States Biological Survey, who has made a close study of their habits. Certain species of



A RUSTIC BIRD-BATH.

birds consume numberless mosquitos and such other disease-breeding insects as annually collect a toll of death among cattle. According to the "American Naturalist," the examination of the stomach of a night-hawk revealed five hundred mosquitos—indicating a tremendous slaughter among these enemies of mankind.

Insects, it is asserted by government experts, are more numerous than any other known form of life. Their appetites are as astonishing as their numbers. Certain caterpillars eat twice their weight in leaves per day, and it is well to remember in this connection that, during their progress to maturity, which occupies thirty days, some of these species increase in size no less than ten thousand times.

It is Mr. White's belief, and that of others who have given the subject careful consideration, that, with suitable co-operation the country over and the awakening of an interest in bird life, vast sums now lost could be saved to the public each year. For this reason, as well as others, he has sought to maintain a safe breeding-place for all kinds of birds, and in furtherance of that plan has provided them with comfortable lodgings, one idea being to see if migrating birds could be induced to remain in the vicinity of Chicago the year round.



A WREN BUNGALOW HUNG ABOVE THE SUET BASKET.

In his brief period of experimenting, Mr. White has proved that many of the migratory birds that annually desert the North for sunnier lands do not travel south solely because of the climate. Lack of food has starved them out.

A great many supposedly migratory birds have spent the winters on the White place and lived on the suet supplied in the food-boxes.

The work of feeding the birds has resulted in the construction of a special design of food-box that may be seen not only on the grounds of Mr. White's home, but in the city's parks as well. It was discovered that when suet was placed without protection on the ground or on the limbs of trees, the bigger birds, after the manner of human kind, crowded out the smaller and weaker birds and took possession of the entire supply.

In order to prevent this, the box now in use was constructed. Its back consists of a curved piece of steel that protects the bark of the tree upon which it is hung. The front is covered

with a strong wire net that is sufficiently coarse to admit the bills of the hungry birds, but too fine to allow them to remove all of the suet supply at once.

The result of the feeding plan is that many birds of species that ordinarily would be unknown in the region of Chicago during the winter months remain on the White estate, seeming to appreciate the fact that they will be provided for. Others, coming from a more northerly latitude, decide to remain in this realm of plenty until the return of spring sends them back to their old haunts.

This leads to the belief that, once this feeding-place has become thoroughly known to the feathered rovers, they will be attracted in sufficient numbers so that they will multiply rapidly, and, if left undisturbed, will in the course of a few years make a considerable showing.

ROBERT H. MOULTON.



A THREE-STORY BIRD-RESTAURANT.
(A grain-feeding device of three trays with a waterproof roof.)

A DESERT BIRD-LAND

Not many people are aware that on our far-western desert, known as the Colorado Desert (which might seem to mean that it is in the State of Colorado, whereas it is in California, near the head of the Gulf of California, much farther south), there are many groups of palms. They are the *Washingtonia filifera*, the only true palm of the United States. In the cañons of the arid mountain-ranges, and here and there in an oasis of the open desert, these beautiful trees are found, always a welcome sight to the traveler, for they indicate the presence of water, though often it is alkaline, and not very wholesome nor pleasant to the taste. As a rule, they are placed about the shore-line of the ancient sea that formerly occupied much of the locality, and traces of which remain in the form of multitudes of little shells that powder the ground for miles, looking exactly as if fine rice had been scattered all over the land.

In traveling recently about the desert, one of my camping-places was at an oasis called Seven Palms, in the northwest part of the region. There are actually about twenty palms in the oasis,



PALM BIRD-HOUSES IN AN OASIS OF THE COLORADO DESERT.

some standing singly or in pairs, with one group of ten or twelve clustered about a spring of tepid water. I made camp in this grove, where I had for neighbors a great number of birds that had found most excellent quarters under the dead palm-fans that hung in a thick, closely fitting mat at the tops of the stems, below the crown of growing leaves. A few of the palms had no such head of green, living foliage, and the masses of dead fans made a kind of hood, like a great candle-extinguisher, at the tops of the tall smooth trunks. For some reason, these odd-looking freaks seemed to be special favorites as nesting-places.

I learned from a settler a few miles away that these decapitated palms had lost their heads by lightning stroke. Four years ago there had been an unusually heavy thunder-storm, one of those short, sharp convulsions that in summer fall upon the desert dweller with extreme suddenness, sometimes almost literally "out of a clear sky." When my friend passed the palm-grove the following day, it was seen that some of the trees (the only objects of any height for many miles around) had been struck and killed. The scars were still to be seen on one or two of the stems.

It was a pretty thing to see the birds come home to their palm houses at evening. Linnets,

sparrows, bluebirds, wrens, and many other kinds came from all quarters as 'sunset-time' approached, and would sit in sociable groups on the leaf-stems and dead flower-stalks, preening themselves, and chattering or singing gaily or thoughtfully, for half an hour or so. Then, one by one, they would fly with a crash into the mass of dry, rustling leaves, and for a few minutes there would be a small pandemonium up there while they hustled and fluttered about before they were settled for the night. In the morning they came bursting out in twos and threes, and hurried off to breakfast without a moment's delay.

A quarter of a mile away there stood a single palm on the edge of a sandy ravine. This palm I found to be the regular daily station of an eagle, who came each morning from the mountain five miles away to the south. Almost always there was a strong breeze blowing along the ravine, and I do not know whether it was the fine rush of the wind, that made the palm-fronds hiss and rattle like a boat's rigging in a gale, or the rabbits in the mesquit thickets near by, that made the attraction of the spot to the fierce, solitary bird. Whenever I approached, he would sail off with a few broad sweeps of wing, and come circling back only when I withdrew. And I found that no amount of careful hiding could ever deceive that blazing, searching eye.

Besides the birds I have mentioned, every day brought other and rarer ones to my palm-grove.



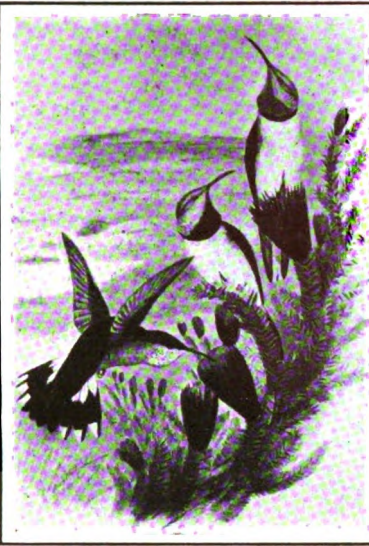
THE EAGLE'S PALM.

Mount San Jacinto in the background.

Cranes, herons, ducks, snipe, coot, geese, and many more, I noted from my blind among the arrow-weed beside the little alkaline pool. I am sure that a naturalist could find no better field of study than one of these palm oases, to which the



JACOBIN HUMMING-BIRDS.



CHIMBORAZO HILL-STARS.



CRIMSON TOPAZ HUMMING-BIRDS.

presence of water brings, of necessity, the bird and animal, and much of the vegetable and insect, life of many miles of arid plain and mountain.

J. SMEATON CHASE.

OUR BIRD ARCHITECTS

If you were asked to name the most intelligent of the bird family, would n't you think first of the parrot and crow?

Naturally—you would. Yet they are surpassed in point of intelligence by humming-birds—especially in the marvelous cleverness shown by the latter in their nest-building operations.

Thus, for example, the very tiny species known as "hermits," which inhabit the gloomy and, as yet, unexplored forests of southern Brazil, fasten their nest to the long tips of palm-leaves, this being intended, apparently, as a precaution against attack by monkeys. But incidentally, the little house is so placed that all falling water (in a region where it sometimes rains as if the bottom of the sky had dropped out) is shed away from it by the leaf.

Even in those parts of tropical America where, as in Colombia, humming-birds are vastly numerous, it is almost impossible for the most experienced naturalist to find their nests. And this, although, as a rule, they are not hidden at all—the feathered builders relying for concealment upon the likeness of their tiny houses to the surroundings amid which they are placed. A hummer's nest always corresponds exactly in color with the branch to which it is attached. It may imitate a knot or other excrescence. Thus the Calliope humming-bird of the western United

States often builds on a dead pine-twig, either upon or near a cone of similar size and hue.

Usually the nests of humming-birds are cup-shaped or turban-shaped, and their material is always plant-down. Such down, resembling cotton-wool, but of more delicate fiber, is gathered from the stems of ferns and other plants. This is woven together with spider's webs into a compact mass. Usually they ornament the outside of the nest with small feathers, or lichens which they obtain by detaching them from the rocks where these humble plants grow. These they fasten with cobwebs all over the exterior of their tiny house.

When these wee architects suspend their nests from leaves or tendrils, they are always weighted for stability, in order that they may not be upset by every passing breeze. For this purpose the bottom is made very thick. But the most remarkable expedient is that adopted by the "hill-stars," which dwell far up near the snow-line of the Andes; they weight the tiny, suspended house on the lighter side with a pebble, to give the proper balance. There is no question whatever that this is done, and many of the nests of such species, preserved in collections, are found to contain pebbles.

Perhaps the most remarkable thing about humming-birds is the biologic relation they bear to plants. All of them live largely on the nectar of flowers, and nature seems to have designed certain species for getting at the sweets of the particular blossoms they like best. Thus, for example, the "sicklebills" have curved beaks of a most peculiar form for reaching the honey-glands of

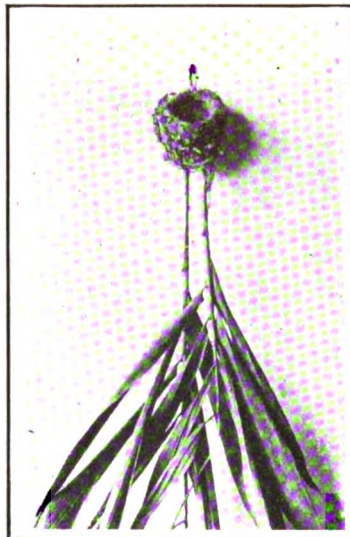
orchids and palm-flowers. In like manner, for robbing long, trumpet-shaped blossoms, the "sword-bearer" possesses a bill over five inches in length, which contains a tongue capable of being protruded nearly as far beyond the tip.

Like the bee, the humming-bird pays for its honey by carrying pollen from flower to flower, thus cross-fertilizing many kinds of plants. It cannot live on honey alone, however, but requires insects to help out its diet. Many of these it gathers from the flowers, but it gathers them also on the wing.

ordinarily adopted by birds of this family, and has been likened to that of a butterfly. When hovering over a flower, it "flaps its wings with slow and powerful movements."

Humming-birds are not timid, as is commonly supposed. On the contrary, they are fearless and decidedly inquisitive. One will approach a human being so close as to be easily within reach of the hand, but the slightest movement causes it to vanish so swiftly that the eye can scarcely trace the line of its flight.

Humming-birds are peculiar to America; no-



A HUMMING-BIRD'S NEST ATTACHED TO A PALM-LEAF.



THE BUFF-TAILED VELVET-BREAST OF THE COLOMBIAN ANDES.



NEST OF THE BLACK-CHINNED HUMMING-BIRD.

If you will quietly watch one of these tiny birds some bright morning, you will see it pause in the air for an instant, then turn and dart away. There is no doubt that the object of their quick turns is the capture of insects.

The hummer spends most of its time on the wing, apparently, balancing in the manner of a moth before the flowers from which it gathers honey. Its flight is that of an insect rather than a bird. The vibrations of its wings are so astonishingly rapid (something like 500 to the minute) as to give to the eye the effect of a mere blur, incidentally producing the peculiar humming noise from which this feathered family takes its name.

Smallest of all the five hundred species known is Princess Helena's humming-bird, which is only two and a quarter inches long. On the other hand the so-called "giant humming-bird" of the Andes—a quiet-colored species, native of Chile and Ecuador—is about the size of a robin. Its manner of flight is entirely different from that

body ever heard of them before Columbus made his first voyage of discovery. They are the fairies of the bird world, "feathered jewels," as Kingsley called them, dainty glistening things, shading from emerald to gold, from ruby to emerald, as the sunlight falls upon them from different angles.

ROSE L. HONEYMAN.

THE CAPTIVE'S SONG

THE habit of the thistle-bird, which always sings persistently when in trouble of any sort, is a good one to imitate. A gentleman living in the village of Silver Creek, Nebraska, had heard under his window, for many successive days, the persistent song of one of these little birds, and finally called the song to the attention of a naturalist friend who constantly studied birds and their ways. Upon investigating the source of the notes, the friend discovered that the thistle-bird was a captive in its nest. A ladder was brought, and bird and nest were taken down for

examination. One leg of the little prisoner had become entangled in the wool which formed the nest's lining, and it took twenty minutes of painstaking effort before the leg was freed. When this was done, the spectators were greatly surprised to see the bird fly away, a trifle unsteadily but apparently not at all injured. The bird's parents or some of its feathered friends had kept it supplied with food during its captivity. But the remarkable part of the story is that its habit of singing was the cause of its release.

C. R. SMITH.

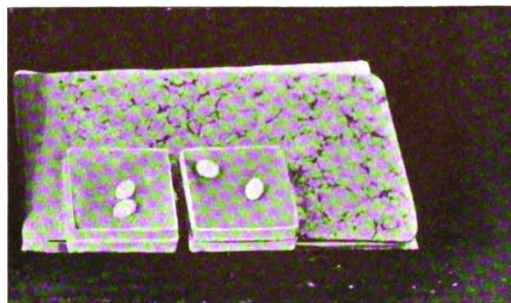
SOME TINY EGGS

DID you ever stop to think how very tiny a humming-bird's egg is? In the picture which we print on this page are two boxes, such as a doctor uses for pills or small powders, resting on a stenographer's note-book. The eggs in the little boxes are those of the humming-bird, a very interesting bird in a great many ways.

The humming-bird is one of our prettiest little birds; he flies with wings that move so rapidly that it seems as if he were surrounded with a filmy gauze; as he sips up the honey from a flower he keeps his wings vibrating, while his body seems to be resting quietly; or he will dart quickly to one side, making turns that would excite the envy of a most daring circus-athlete. Away he goes to his mate, who is sitting on the tiny nest in the apple-tree. If you follow and try to get too close, he will dart at you, turning just as he comes so near to you that it seems as if he would strike, plainly showing that he does not like to have you come so close as to disturb the harmony of the home.

But those eggs! How tiny they are! I can only compare the humming-bird's egg to a five-grain quinine capsule to give you some idea of the minuteness of the egg itself. It does not seem possible that any bird can hatch out of such a small shell. And yet from it will come, one of these days, a little bird that is destined to become one of our most interesting feathered friends. It will be noted for its beauty and perfect flight; it will be noted as the fearless one of the garden—the one that will let you watch from a short distance and will even come right up to your elbow to get the nectar from some particularly attractive flower; it will be noted for its speed, for it can pass any living bird in a short flight; but most especially will it be noted for its warlike tendencies. We are told that only the woodpeckers stand their ground when the humming-bird says "Get out"; and even these birds prefer not to fight if they can help it. The pugnacious English sparrow flees in absolute terror, and let

me tell you that it takes a great deal to terrorize that feathered bandit! Even the kingbird, the protector of many a weaker bird from the attacks of crows, jays, and others, is forced to go if the humming-bird so wills. But, curiously enough, the humming-bird has a special aversion to those curious moths known as the sphinx- or humming-



EGGS OF THE HUMMING-BIRD.

bird-moths; he seems to consider these creatures as the special object of his vengeance, and will often go out of his way to drive one from a favorite flower!

WALTER K. PUTNEY.

THE "PEACEFUL" DOVE

THE statement made in a recent article of interest by Norman McClintock, an enthusiastic natural historian, that the dove, instead of being a gentle, peace-at-any-price bird, is one of the most confirmed brawlers in birddom, will not surprise old hunters, but it comes as a shock to those who get their knowledge of birds out of books and literature.

Where has the world obtained its erroneous idea that the dove is a long-suffering pacifist? The idea is founded largely on the account of Noah's experience with the flood, when the gentle dove was sent out to find dry land and returned with the olive branch in its mouth.

Moreover, the dove, in its quiet coat of gray merging into a beautiful iridescence of soft feathers, looks as though it were a long-suffering non-combatant. The mourning dove, with its soulful, melancholy music, has deepened the impression that the dove is a bird given over to mournful peace.

But old hunters will confirm the scientific investigation of Mr. McClintock. They will say that the dove may not make as much noise as the jay-bird, but he is as fond of a fight as any other bird and has about as many of them. Even the sweet singer of the south, the mocking-bird, "yon trim Shakespeare," is a fighter and brawler, instead of being given to the gentle ways of a gifted artist.—MONTGOMERY, ALA., ADVERTISER.

FOR VERY LITTLE FOLK



"HIS MOTHER GAVE HIM SOME CEREAL WITH THICK CREAM AND SUGAR ON IT."

THE LITTLE BEAR WHO DID N'T LIKE HIS BREAKFAST

BY A. S. HAYES

ONE morning Little Bear got out of the wrong side of his bed, and came downstairs feeling very cross.



"GREAT TEARS ROLLING
DOWN HER CHEEKS."

At breakfast his mother, who was *such* a nice, kind, soft, woolly bear, gave him some cereal with thick cream and sugar on it.

"*Oof!*" said Little Bear—just like that, in *such* a disagreeable voice. "*Oof!*"

His mother put the cereal to one side and brought him an egg in a pretty cup.

"*Oof!*" said Little Bear.

So Mother Bear took that away and brought him some cocoa, and some toast, and some apple-sauce. "Now," thought Mother Bear, "he 'll *surely* like *these!*"

"*Oof!*" said Little Bear.

"Would you like some bacon?" said kind Mother Bear, very much worried for fear her dear little Bear was sick.

"*Oof!*" said Little Bear.

"Will you have some beefsteak?" said Mother Bear.

"*Oof!*" said Little Bear.

"Here is some nice soup!" said Mother Bear.

"*Oof!*" said Little Bear.

"Now I 'm sure you 'd like this macaroni!" said Mother Bear.

"Oof!" said Little Bear.

"Well, would n't some ham and eggs taste nice?" said Mother Bear.

"Oof!" said Little Bear.

"Dear, dear! I 'm afraid the poor child will starve to death!" said Mother Bear, great tears rolling down her cheeks. She was wiping them away when in came



"'HERE, YOU YOUNG RASCAL,' FATHER BEAR SAID, 'EAT THAT CEREAL!'"

great, big, black, fuzzy Father Bear. He looked first at Mother Bear and then at Little Bear. Then—"Here, you young rascal," he said, in his deep, growly voice, "*EAT THAT CEREAL!!!*"

Little Bear was so surprised and frightened that he ate up that cereal quickity-quick! And then he ate his egg, and then his toast, and his cocoa, and his apple-sauce, and he felt all nice and pleasant again, and he kissed his mother and ran out to play with all the other little bears!

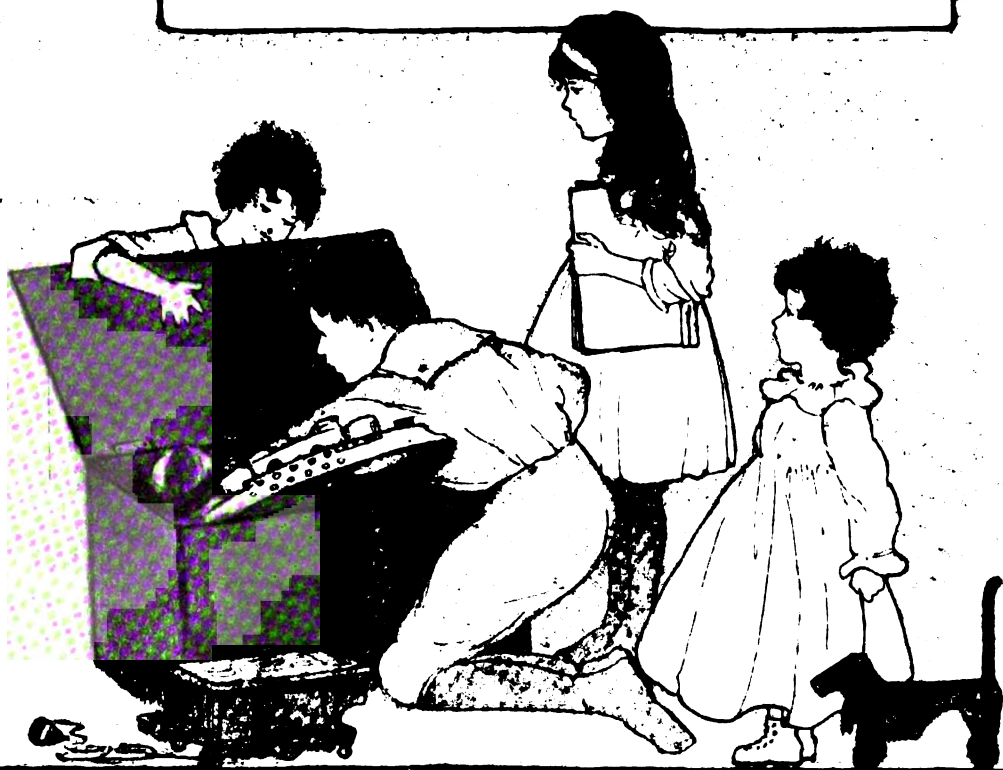
THE RAINY-DAY BOX

BY PAULINE STONE

On the rainy-day box is the jolliest box
That ever you 'd want to see;
It 's just brimming full of the loveliest toys—
Of toys for all ages, for girls and for boys—
And it 's locked with a great big key.

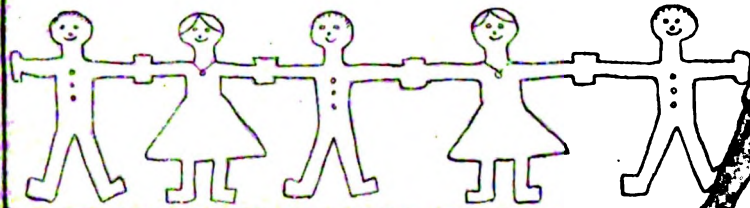
On sunshiny days we must all keep away,
But, as soon as we see the rain,
Instead of a whine or a scowl or a pout,
Away we all skip with a song and a shout
To the rainy-day box again!

And Mother comes down with the great big key,
And, like Santa Claus opening his pack,
She opens the box for us all to see—
For Peter, and Robin, and Baby, and me—
And we play till the sun comes back.



There are puzzles, and tops, and paper dolls,
too,
And a dear little stove that will cook ;
There 's a dog and a rabbit—make-b'lieve ones,
of course—
A train and a steamboat, a small wooden horse,
And a *beautiful* story-book.

And there is a splendid old drum that we love—
We give it some pretty hard knocks—
And we have such wonderful times together
There is n't a minute to think of the weather—
Three cheers for the rainy-day box !



PAULINE STONE 1915.

ST. NICHOLAS LEAGUE



"A HEADING FOR MAY." BY ELEANOR GIBBONS, AGE 13.
(SILVER BADGE.)

"CONGRATULATIONS all round!" is the slogan for this month, dear young folk of the League. For in every department—verse, prose, photography, and drawing—this Maytime competition brought us an extraordinary output of youthful talent, ingenuity, and skill. We heartily wish, in justice to the eager and tireless competitors, that we might spread the whole vast array before the readers of *St. Nicholas*, for in truth there was scarcely a contribution that was not exceedingly creditable—considering, as we always must, the ages of

the senders. But read carefully each and all of these League pages, and from the specimens here printed you will gain a fair idea of what the rest were like. If you are, as we all should be, lovers of the music and rhythm of good verse, you will rejoice in the little poem on "The Open Road" by the winner of the gold badge, with its beautiful refrain,

"Oh, the river road 's the open road out to the open sea."

Quite equal to these charming word-pictures, too, were those offered by young artists with pencil or crayon, for there were numerous headings for the month of May that showed cleverness of design and truly artistic and decorative effects, while the "Made at Home" sketches were remarkable, not only for skill in drawing, but for the humor or "hominess" of the subjects chosen to illustrate the theme. And then the photographs! Here, again, we found a rare combination of beauty and ingenuity, pictures of woodland scenes and city streets, of roaring waterfalls or tumbling surf, of "Moving Things" on land, or lake, or sea, and even such puzzling camera freaks as the first one on the opposite page! Don't overlook the stories, either, for you will find no lack of wit or wisdom in the various versions of "A Winter Adventure" here recorded, nor of gumption or good fun in the way they are told. So once more let us welcome the blithe and bonny May with "Congratulations all round!" from, and to, all lovers of the League.

PRIZE-WINNERS, COMPETITION No. 195

In making the awards, contributors' ages are considered.

PROSE. Gold badge, **Esther J. Lowell** (age 15), California.

Silver badges, **Mary L. Canty** (age 14), Illinois; **Victoria S. Sturge** (age 12), Pennsylvania; **Edna Harley** (age 13), New York; **Helen G. Stearly** (age 12), New Jersey.

VERSE. Gold badge, **Jessie Marilla Thompson** (age 14), Oregon.

Silver badge, **Thomas Skinner Kittrell** (age 17), North Carolina.

DRAWINGS. Gold badge, **Helen Davis** (age 17), Minnesota.

Silver badges, **Eleanor Gibbons** (age 13), New York; **Eunice Jackson** (age 14), New Jersey.

PHOTOGRAPHS. Gold badge, **Elizabeth W. Graves** (age 17), Connecticut.

Silver badges, **E. Everett Rhodes** (age 15), New York; **Roydon Burke** (age 14), Massachusetts; **Alma M. Hopkins** (age 11), New Jersey; **Newton M. Argabrite** (age 12), West Virginia; **Katharine J. Dimon** (age 13), Connecticut; **Helen P. Loudenslager** (age 15), District of Columbia; **Dorothy Hunting** (age 11), New York.

PUZZLE-MAKING. Silver badge, **Lucy D. Thurston** (age 14), England.

PUZZLE ANSWERS. Silver badges, **Vivian Sauvage** (age 16), New Jersey; **Margaret McEntee** (age 11), New York; **Ellen Windsor Lothrop** (age 14), New York.



BY E. EVERETT RHODES, AGE 15. (SILVER BADGE.)



BY A. JAMES SLATER, AGE 13.

"MOVING THINGS."

THE OPEN ROAD

BY JESSIE MARILLA THOMPSON (AGE 14)

(Gold Badge. Silver Badge won January, 1916)

From the rugged mountain-tops, where the snow lies deep,
 Through the valleys, o'er the crags, down the gulches steep,
 Past the mighty forest lands flows the streamlet free,
 To the river, rolling on to join the open sea.
 Oh, the river-road 's the open road out to the open sea.

Like an azure ribbon stretched o'er the mountain land,
 Rolling past its verdant banks and shores of shining sand,
 Tossing on and ever on, from the hills set free,
 Flows the mighty river-road to the open sea.
 Oh, the river-road 's the widest road out to the open sea.

Whitecaps on the little waves sparkle in the sun,
 Swirling eddies past the rocks and the islets run;
 Look! the sea-gulls overhead, on the breezes free—
 For the road has stopped at last—in the open sea!
 Oh, the river-road 's the open road out to the open sea.

A WINTER ADVENTURE

BY ESTHER J. LOWELL (AGE 15)

(Gold Badge. Silver Badge won April, 1916)

THE last Thursday of 1915 dawned unusually cold and drizzly. It rained until the end of the first period at school, when a most extraordinary event occurred. Of



"MOVING THINGS." BY ROYDON BURKE, AGE 14.
 (SILVER BADGE.)

course, you of snowy lands may not appreciate what it meant to us, living in southern California, when we saw what we thought were white feathers floating down, but then realized *it was snow!* Hastening outdoors we saw a snow-storm—for many of us, our first! Although the bell rang, our teachers, also appreciating the first real snowfall here in twenty years, allowed us to watch it awhile.

Soon little trace of snow remained on the ground, so we almost believed we had dreamed; but at noon the clouds lifted and revealed a beautiful scene. The brown hills skirting Hollywood on the north had white-robed summits!

A number of the boys persuaded our principal to dismiss school early. Thus three o'clock saw us, not studying at school, but frolicking merrily on the hill-

sides and in the cañons. My chum and I walked up Laurel Cañon and found the snow several inches deep. A flock of small boys were greatly enjoying themselves, pelting one another and passing automobiles with snowballs. We joined gaily in the sport and caught many snowballs, but not always in our hands.

How strange was the sight of cactus and sage-brush snow-crowned; of trees overladen with snow! Little



"MOVING THINGS." BY ALMA M. HOPKINS, AGE 11.
 (SILVER BADGE.)

ferns peeping from the earth were surprised to find a warm, white blanket over them, and thinking Mother Nature had put them to bed, they curled up to sleep again.

We would have enjoyed playing longer, but after sunset it grew colder; so we hurried home, talking about our wonderful winter adventure.

A WINTER ADVENTURE

BY MARY L. CANTY (AGE 14)

(Silver Badge)

WHILE in Colorado last summer, an old miner told us this story:

"A good many years ago my wife and I lived at a camp in the mountains a few miles from Leadville.

"One cold winter evening we started for the town in the sleigh with some steel drills four feet long. The narrow road was slippery and steep, turning abruptly in



"MOVING THINGS." BY WILLIAM MADLENER, AGE 11.

several places. While we were on the most dangerous piece of road, it being straight up on one side and straight down on the other, I heard a shout behind us. Stopping the horses, I looked back. About twenty feet away stood a man pointing a revolver at us! Having

no weapon with me, I seized one of the drills and aimed it like a gun. My wife, in the dark, must have looked like a man. She wore an overcoat and stocking-cap.

"Picking up a drill she shouted, 'Hands up!' He obeyed. 'Drop the gun!' He again obeyed.

"At that moment a large piece of snow fell from the side of the mountain. The horses, frightened, ran down

on the track to make good going. In the long narrow cutting it was necessary to keep between the rails, because on each side was a ditch four feet deep, full of soft snow.

They were well in the cutting when a sudden whistle startled them—a train was coming—it must be the snow-plough! If the side-wings were on, they must be killed!

Aunt tried to drive to one side, but the dogs were unwilling to turn into the deep snow; when the first two did go, the toboggan stuck in the rails and held back the others! The engineer saw and whistled; and, at the last moment, Aunt got the dogs unharnessed, and she and they fell over into the snow as the train whizzed by!

Fortunately, the side-wings were not on; but the terrified engineer quickly stopped the train and came back to see if they were alive. With him came my uncle, who happened to be on the train. He was very much surprised to find the cause of the delay, and very thankful to find them safe and sound, though almost buried in snow.

My aunt afterwards always thought the longest way round was the safest way to the post-office.



"A HEADING FOR MAY." BY M. MILICENT WATTS, AGE 14.

the road. Dropping the drill in the road, I pulled the reins. The horses stopped.

"After looking back and not seeing the man, I got out of the sleigh and walked back. In the middle of the road was an old revolver. It was unloaded!"

A WINTER ADVENTURE

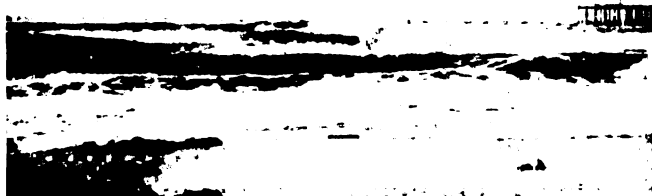
(A true story)

BY VICTORIA S. STURGE (AGE 12)

(Silver Badge)

THIS winter adventure happened in 1912 at Pullen, Ontario, at that time a railroad encampment on the Abitibi River.

It was a threatening day, but my aunt wanted her letters; so she had her four dogs hitched to the toboggan and started off.



"MOVING THINGS." BY NEWTON M. ARGABRITE, AGE 12. (SILVER BADGE.)

It was two miles through the woods to the post-office, and one by the railroad; so she chose the railroad. The train went alternate days, so she would be safe, as it had passed that morning. There was enough snow



"MADE AT HOME." BY MARJORIE WINTERMUTE, AGE 11.

THE OPEN ROAD

BY ELIZABETH KIEFFER (AGE 16)

(Honor Member)

LIKE a ribbon of winding silver
Rolling away to the sunrise,
The white road bends and beckons
In the dusk of the morning hour.

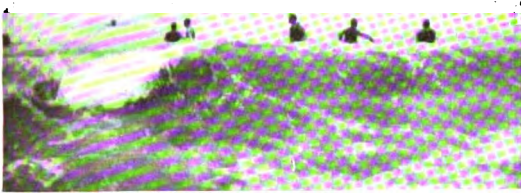
And a gipsy spirit whispers:
"Come, kindred soul, come wander!
Out where the white road calls us,
Far in the dawning glow.

"We'll make our morning toilet
At the cold clear pool by the roadside,
Down at its rippling margin
Where the stunted willows grow.

"The sleeping birds in the hedges
Will rustle and chirp as we pass them,
And the wind that breathes from the uplands
Bring peace to our town-worn hearts."

O spirit, haunt ye no longer
My longing soul with your pleading!
For I may not follow your guidance,
Save in dreams through the lonely night.

But the white road bends and beckons,
Rolling away to the sunrise
Like a ribbon of winding silver
In the dusk of the morning hour.



BY VERDI E. B. FULLER, AGE 12.



BY FRANCES FLOOD, AGE 12.



BY ADALINE E. WHEELER, AGE 16.



BY CHARLES V. BARNUM, AGE 14.



BY KATHARINE J. DIMON, AGE 13.
(SILVER BADGE.)



BY HELEN P. LOUDENSLAGER, AGE 15. (SILVER BADGE.)



BY PEGGY GANTT, AGE 15.



BY HELEN HOWELL, AGE 16.



BY R. HUGH ALCORN, AGE 16.

"MOVING THINGS."

THE OPEN ROAD

BY BARBARA GOLD FROST (AGE 12)

ALONG the broad highway one bright summer's day,
Rode knights on fine coursers, in quest of a fray
In which one might honor himself and his name,
Win some beautiful lady and gain wondrous fame.

There sat by the roadside, a-mourning her fate,
A crabbed old woman, who, looked on with hate
By the knights who came seeking for dames young
and fair,
Could find none to help her, though piteous her prayer.



"MADE AT HOME." BY HELEN DAVIS, AGE 17. (GOLD BADGE.
SILVER BADGE WON MARCH, 1916.)

As she was bemoaning her saddening lot,
There came spurring toward her, at gallop and trot,
A knight, strong and tall, and most gallant and fair,
From his gauntleted feet to his bonny brown hair.

Quoth he: "May I help thee, good dame? For enow
Hast thou borne for thine age and thy weakness,
I trow;
If thou wilt but tell me the trouble thou hast,
I will be thine own chivalrous knight to the last."

He accepted her trust, 'mid the knights' scornful jeers,
And he conquered the dangers, the doubts, and the
fears;
But when he returned, lo,—no old dame was there!
In her place stood a lady, most beauteous and fair!



BY L. C. LEVY, JR., AGE 12.



BY DOROTHY HUNTING, AGE 11.
(SILVER BADGE.)

"MOVING THINGS."

A WINTER ADVENTURE IN THE BLACK HILLS

BY FLORENCE M. TREAT (AGE 17)

(Honor Member)

ACROSS the camp-fire the eyes of the old pioneer twinkled merrily.

"Yes," he said, "there used t' be cougars around here. I remember one winter when they got most too familiar, an' took several o' my calves. Joe Jensen stopped one evenin', mighty excited, an' said that a big fellow was settin' by th' road as he drove past, a-switch-in' 'is tail. But Joe had n't waited for an introduction, as 'e did n't have a gun along.

"Well, I decided t' git that cougar, so I took my dog an' gun, an' started out t' trail 'im. I found 'is tracks in th' snow,—th' biggest ones I ever did see,—an' followed 'em fer hours without any sight o' Mr. Cougar. Then I found where he 'd come onto an elk an' started t' chase 'im. We 'd gained easy, till finally I saw where he 'd given a big jump an' landed on th' elk's back—all except one foot that kept draggin' along behind. But they come to a place where two trees was growin' close together, with another tree fallen across 'em, makin' a reg'lar low bridge. An', sir, that elk had run under *that*, an' brushed th' cougar right off 'is back, an' got away, scatterin' drops o' blood.

"But th' cougar tracks stopped right there. I went back an' forth, an' roun' an' roun' with th' dog, but we could n't find where that cougar had gone. He 'd jus' natch'elly vanished. Sort o' jus' disappeared into the ground, it seemed."

"Well! I give it up, an' set down under a tree 'bout twenty feet away. An', sir, I heard a noise right above my head, an' lookin' up, I saw that big cat lookin' down, an' showin' 'is teeth.

"Well, that 's about all. 'T was th' same tree you 're sittin' under now.

"Oh, yes, I got 'im."



"A MOVING THING." BY ELEANOR
REYNOLDS, AGE 13.



BY ELIZABETH W. GRAVES, AGE 17.
(GOLD BADGE. SILVER BADGE
WON MARCH, 1916.)

THE OPEN ROAD

BY THOMAS SKINNER KITTRELL (AGE 17)

(Silver Badge)

THIS is my story of the open road:
There was a "Jonnie" Ford—a dandy car.
Henry, its owner, loved to take a load
Each day into the country near and far.

One day the rain was falling fast and thick.
Pink, sticky mud blocked all the roads and lanes,
Even a "Jonnie" should have feared he 'd stick.
Not so with this one. (We had brand-new chains.)

Right soon the car was twoscore miles from town,
O'er many a muddy mile we 'd come that day,
And then the engine gave a wheezing sound—
Dead still she stopped! ('T was much to our dismay.)



"A HEADING FOR MAY." BY JAMES DEE RICHARDSON, AGE 13.
(HONOR MEMBER.)

"What happened next?" is what you 'll surely ask.
The lot of cranking fell by chance on me.
Heroically I waded to the task;
Each step I took the mud closed o'er my knee.

One solid hour I made that engine buck.
"Pesky ole motor would n't turn no mo'!"
Each fellow in his turn then tried his luck;
No spark they got, but mud from head to toe.

"Reckon we 'll have to foot it," Henry said.
O'er twenty thousand yards of mud we "goëd."
And I thought that night when I lay in bed,
"Deliver me from 'Joys of the Open Road'!"

A WINTER ADVENTURE

(A true story)

BY EDNA HARLEY (AGE 13)

(Silver Badge)

It was a cold clear day in 1891, and the snow was frozen tight. It was three o'clock. A great babble of voices could be heard. Every child was talking of the snow and of the sleigh-ride they expected to have.

There was a hill three blocks long. It was patronized by all the boys of the neighborhood, the little girls preferring the more gentle slopes. This hill was prime; it had but one drawback—there were two streets to be crossed. The snow was level with the sidewalk, to be

sure, but once in a while a wagon passed, making it unpleasant.

Edward, a little boy living near the hill, was one of the first to draw his sleigh up the great hill and a min-



"A MOVING THING." BY ALBERT F. MADLENER, AGE 14.

ute later to fly down it like an arrow let loose from the bow.

Down he sped again and again, but he went once too often. As he shot down, he crossed the first street safely; but, as he reached the second, a hook-and-ladder truck turned into the street.

He kept on, as he had no choice. Every one on the hill cried, "He 'll be dashed to death under the horses' feet!" But Fate did not mean that he should die in this terrible manner.

When he reached the bottom of the hill, he was dazed, frightened, and surprised.

"You went between the front and rear wheels of the truck!" many voices told him.

All the boys clustered around him, asking questions, praising him, and trying in every way to be friends with him. He certainly was the hero of the day.



"MADE AT HOME." BY EUNICE JACKSON, AGE 14.
(SILVER BADGE.)

THE OPEN ROAD

BY REBECCA EMERY (AGE 14)

THE open road beckons and calls me to come.

It lures with the promise of joys at the end;
'T is springtime, with blossoms of apple and plum,
When hearts are wide open, all Nature my friend.
At the end of the road what glad mystery lies?

What secret of pleasure waits just 'round the bend?
My feet creep too slowly, for wings my soul cries—

The magic and lyric of springtime attend.
Then I must away like a leaf in the wind
As care-free, untroubled, and joyous as air,
And meeting with others—our longings one kind—
Find the open road joyful, surpassingly fair.

A WINTER ADVENTURE

BY HELEN G. STEARLY (AGE 12)

(Silver Badge)

ONE winter Mr. and Mrs. Wren decided not to fly south with their friends, but to stay north. It was a bold adventure, and their only reason for doing it was to satisfy their curiosity as to what winter was like in the north. As soon as their friends had gone, they began preparing for winter by making their nest stronger.

Soon winter came and with it snow and ice, and it was hard to find food. One night, when it was snowing and the wind was blowing hard, the tree in which they had their home blew down. They flew blindly about in the storm till a lucky gust of wind blew them into the broken window of a barn. They snuggled in the hay trying to keep warm, for they were hungry and half frozen.

In a little while a farmer came to get some hay to feed the horses. Seeing them, he approached them cautiously, for he was fond of birds. It was not hard to catch Mr. and Mrs. Wren for they were stiff from cold. The farmer then took them into his house and fed and warmed them. He kept them with him all winter, and they became quite tame. When spring came, he let them go, expecting never to see them again. But he did, for they built their nest near his house, and he put crumbs out for them. The next winter they went south with their comrades, but they always returned to make the farm their home.

A WINTER ADVENTURE

BY BETTY HENRY (AGE 10)

It was a chill afternoon in December, and some of my friends and I had planned to go coasting. Getting tired of the hill we were coasting on, one of my friends, Georgie Young by name, said, "Let's go over to *that* hill," indicating a small hill not far from where we were. Her suggestion was followed.



"MOVING THINGS." BY IRENE WORMSER, AGE 12.

We lived on an island in Long Island Sound, and the hill to which Georgie wanted to go was very near the sea-wall. We had no thought of this, however, so we all climbed to the top, laughing and joking.

Before coasting down a hill myself, I always send my sled down alone, to see how well it goes. I did it this time, as we had not coasted on this hill before, but, instead of stopping at the foot of the hill as I had expected, it kept on going, and, alas! vanished over the sea-wall.

Although sorry over the loss of my sled, I was very thankful that I was not on it.

THE OPEN ROAD

BY ESTHER KEYES BEARD (AGE 8)

WHAT do I find on the open road
As I wander on my way?
There frisks a little chipmunk brown,
Skipping so merry and gay.

The whitethroat sings there in the tree,
The bob-white whistles near.
The blackberries are growing thick;
Oh, don't they taste good here!

The open road leads up the hill,
And from the top I see
The scattered homes, the mountains high,
The river flowing free.

"MADE AT HOME." BY MARIAN ALLARDT, AGE 13.
(HONOR MEMBER.)

THE ROLL OF HONOR

- No. 1. A list of those whose work would have been used had space permitted.
No. 2. A list of those whose work entitles them to encouragement.

PROSE, 1

Rezia M. Rowley	Virginia Cilley	Reba Strickland
Frances E. Johnson	Adelaide Planz	Ellen Haines
Mildred Frank	Frances Hyde	Lydia T. Hicks
Tillie Rosen	Rosalyn Margolies	Anna Richter
Phyllis K. Kett	Elizabeth Blair	Irene Shlivek
Florence Guelman	Evelyn G. Pullen	Anna Higgins
Blanche Livingston	Mary R. Wilson	Florence
Virginia Babbitt	Ruth Rosenthal	Nightingale
Theodosia Cushing		
Elizabeth E. Clarke		
Dorothy H. Leach		
Gwenfredd E. Allen		
Eleanor Shaw		
Larmino Sievens		
Thomas Blair		
Walter Hanlon		
Katharine Van R. Holste		
Mary C. Call		
Helen Zielsdorf		
Genevieve Smith		
Helen Roper		
Mildred Murray		
Phyllis Ballard		
Lois Gardner		
Rebecca Luther		
Mary F. Gopen		
Minnie Rosen		
Elizabeth Todd		
Constance Dreyfus		
Mary C. Staley		
Eleanor W. Barker		
Elsie Joiner		
Josephine Smith		Margaret E. Stuart
Sarah Richards		Olga Ohlin
Susan Vickrey		
Norma R. Gullette		VERSE, 1
Dorothea L. Worden		Margaret Mackprang



"MADE AT HOME." BY CATHERINE L. SPENCER, AGE 12.

Katharine Putnam
Elsie L. Lustig
Donald Hendry
Elizabeth Upham
Marjorie E.
Saunders
Peggy Norris

Elisabeth Wilson
Mildred H. Aaron
Eleanor Hoffmann
Marcella Miller
Rosalie B. Dunlap
Marjorie Van Bolt
Mildred E. Ward

May A. Mack
Anna Jessop
Dorothy F.
Anderson
Theodore Johnson
Irma Gaensslen
Mary E. Herr
Elizabeth Knabe
Anthony J. Delano
Elizabeth C. Brown
Barbara Prosser
Nelson W. Prentiss
Regine K. Back
Dorothy H. Staples
Margaret Jones
Muriel W. Curtis
Florence Longeway
Elizabeth Poucher
Marion Clark
Helen Balbach
Gwendolen Dorey
Gertrude Babette

Mildred H. Lanman
Louise Patricia
Lynch
Mary Chandler
Catherine Pelton
Neveland Brand
Dorothy Besuden
Constance M.
Pritchett
Richard Pomeroy
Betsey Davis
Hugh Warren Kite
M. Elizabeth Davis
Isadore Solkoff
Mary E. Landrus
Kathleen L.
Campbell
David Stein

PUZZLES, 2
Dorothy Marshall
Isabel Tovey
Charles Montgomery
Isadore Goldin
Elizabeth N. Dale
Frances M. Segner
Deborah J. Higbee



"A HEADING FOR MAY." BY FLORENCE E. WALLACE, AGE 15.

Katharine Van
Bibber
Oscar Kaplan
John D. Cox
Dorothy Levy
Margaret C. Bland
Macon Miller
Yvonne Smith
Hannah Ratisher
Harriet G. Guild
Jean F. Black
Anne Jennings
Arthur C. Johnson
Edith V. M.
Simonds
Mary S. Benson
Marian Welker
Eleanor C. Slater
Margaret Parsons
Katharine Bull
Honor M. Grout
Miriam Simons
Arthur L. Corbin, Jr.
Eleanor Johnson
Celestine Morgan
Ruth Sherman
Dora Susseman

Mary Bosworth
Helen A. Kramer
K. Hayden

DRAWINGS, 1

C. Marina Foster
Evelyn Rosenthal
Elizabeth F.
Bradbury
J. Edgar Miller
Ann Hamilton
Frances H. Lenz
N. D. Hagan
Josephine R. Hayes
Theodora S.
Kaufman
Helena M. Chase
Evelyn Burdett
Isabel Conklin
Paul Dettleson
Helen A. Johnson
Beryl M. Siegbert
Alta I. Davis
Naomi Brackett
Caroline M. Wood
Virginia Dunn

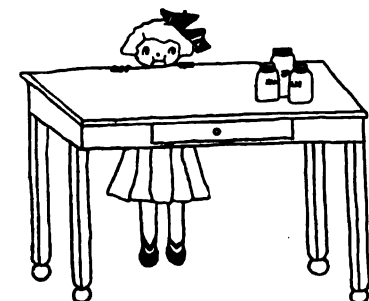


"MADE AT HOME." BY ANNA BABCOCK, AGE 13.

Jean C. Warren
Marie F. Boas
Mary L. Lytle
Leonard Richards
Carolyn Olmsted
Frances Weed
Charles E. Lytle, Jr.
Katherine B. Hyde
Helen Stern
Edith Dempsey
Otto Madlener
Helena Jelliffe
Marta V. Horton
Barbara Alexander
Kurt Weidenthal
Margery B.
McClellan
Katherine G.
Winslow
Marie Puchner
Albert E.
Kantrowitz
Janet MacKay
Margaret Olmsted
Maitland L. Griggs
Alice E. Hanscom
Richard A. Cutter
Virgene Beadle
Katharine Switzer
Samuel B.
Fortenbaugh, Jr.
Margaret Warren

PUZZLES, 1

José Vaello
Ruth J. Browne
Alan A. West
Florence Noble
A. Louise Sumwalt
George H. Pendleton
Tilse Daniels
E. Custis Bennett



"MADE AT HOME." BY JEAN SIEBERT, AGE 12.

Beatrice Traub
Kirk Taylor
Wynne Fairfield
Mary Lockett
Marie Mirvis
Dora Miller
Mary W. Fake
Edith von Rhein
Kate A. Cox
Helen Palmer
Eunice Thompson
Vera Monteagle
Elsa Doerner

Pauline E. Dikeman
Maria L. Thompson
Juliet Chisholm
Eleanor Fink
H. Martyn
Kneeder, Jr.
Graham C. Norwell
Francis Bartlett
Sibyl Walcutt
Wm. R. Hamilton,
Jr.
Catherine Barton
Edith Nelson

PRIZE COMPETITION No. 199

THE ST. NICHOLAS League awards gold and silver badges each month for the best *original* poems, stories, drawings, photographs, puzzles, and puzzle answers. Also, occasionally, cash prizes to Honor Members, when the contribution printed is of unusual merit.

Competition No. 199 will close **May 24** (for foreign members **May 30**). Prize announcements will be made and the selected contributions published in ST. NICHOLAS for **September**.

Verse. To contain not more than twenty-four lines. Subject, "In a Rose Garden," or "Friendship."

Prose. Essay or story of not more than three hundred words. Subject, "What Happened Next."

Photograph. Any size, mounted or unmounted; no blue prints or negatives. Subject, "My School."

Drawing. India ink, very black writing-ink, or wash. Subject, "Admiration," or a Heading for **September**.

Puzzle. Any sort, but must be accompanied by the answer in full, and must be indorsed.

Puzzle Answers. Best, neatest, and most complete set of answers to puzzles in this issue of ST. NICHOLAS. Must be indorsed and must be addressed as explained on the first page of the "Riddle-box."

Wild Creature Photography. To encourage the pursuing of game with a camera instead of with a gun. The prizes in the "Wild Creature Photography" competition shall be in four classes, as follows: *Prize, Class A*, a gold badge and three dollars. *Prize, Class B*, a gold badge and one dollar. *Prize, Class C*, a gold badge. *Prize, Class D*, a silver badge. But prize-winners in this competition (as in all the other competitions) will not receive a second gold or silver badge. Photographs must not be of "protected" game, as in zoological gardens or game reservations. Contributors must state in a *few words* where and under what circumstances the photograph was taken.

No unused contribution can be returned *unless it is accompanied by a self-addressed and stamped envelop of the proper size to hold the manuscript, drawing, or photograph.*

RULES

ANY reader of ST. NICHOLAS, whether a subscriber or not, is entitled to League membership, and a League badge and leaflet, which will be sent free. No League member who has reached the age of eighteen years may compete.

Every contribution, of whatever kind, *must* bear the name, age, and address of the sender, and be indorsed as "original" by parent, teacher, or guardian, *who must be convinced beyond doubt—and must state in writing—that the contribution is not copied*, but wholly the work and idea of the sender. If prose, the number of words should also be added. These notes must not be on a separate sheet, but *on the contribution itself*—if manuscript, on the upper margin; if a picture, *on the margin or back*. Write or draw on *one side of the paper only*. A contributor may send but one contribution a month—not one of each kind, but one only; this, however, does not include the "advertising competition" (see advertising pages) or "Answers to Puzzles."

Address: **The St. Nicholas League,**
353 Fourth Avenue, New York.

THE LETTER-BOX

THE entertaining letter from Duluth, Minnesota, published in our April "Letter-box," was, by a printer's error, incorrectly ascribed to Natalie Hammond, the writer of the preceding letter, instead of to one of the eleven-year-old friends of ST. NICHOLAS, Jeanne Hugo, to whom we offer our sincere apologies for the mistake.

EDITOR ST. NICHOLAS.

LOUISVILLE, KY.

DEAR ST. NICHOLAS (especially members of the League): I can't belong to your League,—I'm too old,—but I just want to write to you to tell you that I know more, probably, about ST. NICHOLAS, than all of you put together. I'd hate to tell how much I *do* know,—you'll all know my age if I do,—but I used to take ST. NICHOLAS when I was little, while "The Fairport Nine," "Among the Lakes," "Phaëton Rogers," "The Story of Viteau," "The Story of the Field of the Cloth of Gold," "Saltillo Boys," "Historic Boys," and "Historic Girls," and all the others were running serially. How I did love "Among the Lakes," with *Piney* and *Bi* and *Chub* and *Rory*!

I *never* enjoy stories nowadays as I did then. Neither will you when you get older, so make the most of your time!

Why, my goodness! I can even remember a whole alphabet of limericks about boys and girls, that appeared then, and recite all of them to-day.

I've got every one of them in my head, and a thousand more besides.

"Old Bob, Young Bob, Little Bob and Big;

Molly Bob, and Polly Bob, and Polly Bobby's Pig"—

Don't get me started—I never know when to stop when it comes to remembering the things in those old ST. NICHOLASES! Up in the attic at home was one place all built in with shelves; and all of them *full up* with ST. NICHOLAS, "Godey's Lady's Book," "Harper's," "Century," "Scribner's," and an English magazine, called "The Young Ladies' Journal." If I could get into that attic now, and rummage!

My daughter takes ST. NICHOLAS now. She is a little girl, but her brothers are grown up. Now, don't go guessing how old I am!

E. D. H.

ALSTOWN, WASH.

DEAR ST. NICHOLAS: I like you better every day and wish we could have the topic "Books and Reading" by Hildegarde Hawthorne all the time. Also, the new subject called "The Watch Tower" gives us some splendid things. We have had you in our family for years, and have every copy saved back to "Little Lord Fauntleroy," in 1885.

Yours, with best wishes, from your girl

ELDRIDGE McELHINNEY.

PEWEE VALLEY, KY.

DEAR ST. NICHOLAS: I have been wanting to write to you for ever so long, but have not had time until now. Reading that thing in this number's "Stamp Page" about "Put It Up To Dad," I asked Daddie some of those questions, and he was completely baffled. He could n't tell a thing about it. I just teased him. I

have been taking ST. NICHOLAS only two years, but as soon as I had read the first number, I concluded that it was the best magazine that I had ever read. I read absolutely *everything*, and enjoy it, too. I have a little brother Billy, aged eight, who enjoys "For Very Little Folk," which I read to him every month. I think I enjoyed "The Lost Prince" and "The Boarded-up House" better than any, so you can imagine my delight when I found one of my Christmas presents to be a copy of "The Lost Prince." I am just crazy about "The Sapphire Signet." I think it is just simply *maddening* to have it stop right where it has. I liked "Saved by a Camera." Your interested reader,

FRANCES GATCHEL (age 12).

CHICAGO, ILL.

MY DEAR ST. NICHOLAS: You were a birthday present to me, and the person who chose you for a present certainly did well.

In reading the "Letter-box," I so often read "My mother took you when she was a little girl, and we have many volumes bound." I surely wish I could say that, but as long as I can't *my children* can.

I am sick in bed at present, and you can't imagine what pleasure you have given me.

From your loving reader,

HARRIET L. MAY (age 12).

OXFORD, NER.

DEAR ST. NICHOLAS: You just don't know how I enjoy you, and I want to thank you very much for the pleasure you give me. My oldest sister gave you to me on my sixth birthday. My favorite story in the 1915 ST. NICHOLAS was "The Lost Prince." I think you made a mistake in the February, 1916, ST. NICHOLAS about "The Lost Prince," when you said, "a story for young people from ten to a hundred." You should have said from *seven* to a hundred, for I was seven when I read it.

My cousin takes ST. NICHOLAS, and he likes it very much too.

I have a cat named Susan; she is very fat. Her birthday is on the twenty-fourth of August. She was born in 1915. She is ever so playful. Susan and another cat have great "cat-concerts" together. So I call Susan "Schumann-Heink," and the other cat "Caruso."

I will never get tired of ST. NICHOLAS, I know.

Your loving reader,

MARGARET MACKPRANG (age 8).

ENGLEWOOD, N. J.

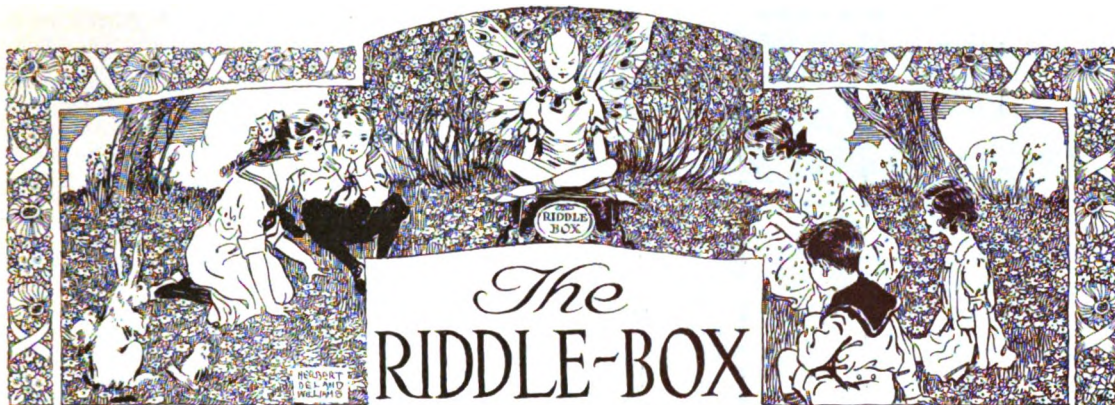
DEAR ST. NICHOLAS: I received you for a Christmas present this year. This is how it happened. One evening I asked my father if I could subscribe for it. He said I could if I wanted to, but why should n't I buy it every month? While I was emptying my stocking on Christmas, Mother said, "Look what I see!" I looked under the tree, and, standing among a lot of fascinating packages, stood the December copy of ST. NICHOLAS! It was hard to make my eyes look at anything else. It was from Father.

My favorite stories are "The Sapphire Signet," "Where Journeys End," and "Saved by a Camera."

I certainly enjoy you.

Your sincere reader,

ANNA QUIMBY (age 11).



ANSWERS TO PUZZLES IN THE APRIL NUMBER

DOUBLE ACROSTIC. Initials, spring; third row, Easter. Cross-words: 1. Sweden. 2. Psalms. 3. Rascal. 4. Intend. 5. Needle. 6. Garnet.

METAMORPHOSES. 1. Lily, Livy, live, line, lone, lose, rose. 2. Blue, flue, flee, fled, pled, pied, pies, pins, pink. 3. Tree, free, fret, feet, beet, best, bust, bush. 4. Gate, mate, male, malt, molt, moot, moor, door. 5. Soft, loft, lost, host, hast, hart, hard. 6. Leaf, leas, less, lest, list, lint, line, vine. 7. Desk, disk, Dick, dice, dame, game. 8. Girl, gird, bird, bard, bare, bade, lade, lady. 9. Shoe, shot, soot, coat, coat.

GEOGRAPHICAL DIAGONAL. Thackeray. Cross-words: 1. Tennessee. 2. Sheffield. 3. Guatemala. 4. Blackfeet. 5. Brookline. 6. Bethlehem. 7. Bosphorus. 8. Amsterdam. 9. Alleghany.

NOVEL ACROSTIC. Initials, William Shakspeare; fourth row, "Merchant of Venice." Cross-words: 1. Warmth. 2. Impede. 3. Laurel. 4. Lancel. 5. Inches. 6. Aviary. 7. Magnet. 8. Soften. 9. Heroic. 10. Artful. 11. Knaves. 12. Solely. 13. Pounce. 14. "hics. 15. Rescue. 16. Endear.

SOLVERS wishing to compete for prizes must give answers in full, following the plan of the above-printed answers to puzzles.

TO OUR PUZZLERS: Answers to be acknowledged in the magazine must be received not later than the 24th of each month, and should be addressed to ST. NICHOLAS Riddle-box, care of THE CENTURY CO., 353 Fourth Avenue, New York City.

ANSWERS TO PUZZLES IN THE FEBRUARY NUMBER were received before February 24 from Margaret McEntee, 9—Ellen W. Lothrop, 9—Vivian Sauvage, 9—Florence Noble, 9—Helen A. Moulton, 9—"St. Anna's Girls," 8—Mary Goulder White, 8—Elizabeth Rodgers, 8—Margaret S. Guthrie, 8—Claire A. Hepner, 8—Katharine H. White, 8—Isabel Wisner, 8—Frances Burrage, 7—"Rettop," 7—"Allil and Adi," 7—Helen H. McIver, 7—Ted F. Miller, 7—Marshall A. Best, 7—Lloyd Berrall, 7—Jane McC. Bennett, 7—Arthur Poulin, Jr., 6—Marion Ames, 6—John H. Lewy, 6—Mary and Adrian Lambert, 6—Elizabeth H. Sherley, 6—John Pierpont Helmick, 6—H. Louise Hughes, 6—Helen Adda Vance, 5—Marjorie M. Lounsbury, 5—Russell Kenfield, 5—Clara E. Russel, 5—Sydney Archbell, 5—Raymond Anthony, 5—Morton Milsner, 4—Anna S. Lerner, 4—Whitney Ashbridge, 4—Jane Quackenbush, 3—Jeannie Dupee, 3—Margaret H. Simpson, 3—Aurelia Hall, 3—Barbara Farr, 3—A. F. Griffin, Jr., 3—Ellen McCandless, 3—Sherwood Johnston, 3—Frankie Vernam, 2—Elsa Mayer, 2—Mary Phelps, 2—Isabel Schaefer, 2—Agnes S. Marshall, 2—B. Falcon, 1—L. Couch, 1—Louis Mandl, 1—L. B. Lewis, 1—R. Sparks, 1—F. Nelson, 1—M. M. Hudson, 1—E. Messemmer, 1—J. Frantz, 1—M. Buckingham, 1—G. Yeomans, 1—K. and N. Lapsley, 1—L. Rhodes, 1—M. Fuller, 1—M. Youngs, 1—C. Copeland, 1—M. Holcombe, 1—M. Gelbert, 1—P. Grindon, 1—T. Dennis, 1—M. M. Breckinridge, 1—M. Curtis, 1—F. A. Bryan, 1—H. McCormick, 1—M. F. Preston, 1—H. Murphy, 1—E. Morrow, 1—M. S. Kellogg, 1—S. Brown, 1—M. Eastman, 1—L. Hatheway, 1—M. Jenks, 1—J. Goodell, 1.

NUMERICAL ACROSTIC

1 26 29 32 13 46 Cross-words: 1. Light-hearted. 2. Mixtures of two or more metals. 3. Just. 4. Lonesome. 5. A shallow pool. 6. A small depression. 7. An animal with a ringed tail. 8. Quavers.

20 35 44 30 15 10 When the foregoing words are rightly guessed, the letters represented by the figures from 1 to 10 will spell the name of a famous English poet; from 11 to 16, his birthplace; from 17 to 28, his most famous poem; from 29 to 33, one of his masks; from 34 to 41, one of his famous poems; from 42 to 48, another of his poems.

FRANCES B. GARDINER (age 16), *League Member*.

BEHEADINGS

1. BEHEAD a boy's name, and leave a color. 2. Behead a girl's name and leave consumed. 3. Behead a boy's name and leave station. 4. Behead a girl's name and

leave a pronoun. 5. Behead a boy's nickname and leave indisposed. 6. Behead a girl's name and leave a song from an opera. 7. Behead a boy's nickname and leave another nickname. 8. Behead a girl's name, and leave period. 9. Behead a boy's nickname and leave a common little article.

JOHN MCCLELLAN (age 10), *League Member*.

WORD PUZZLE

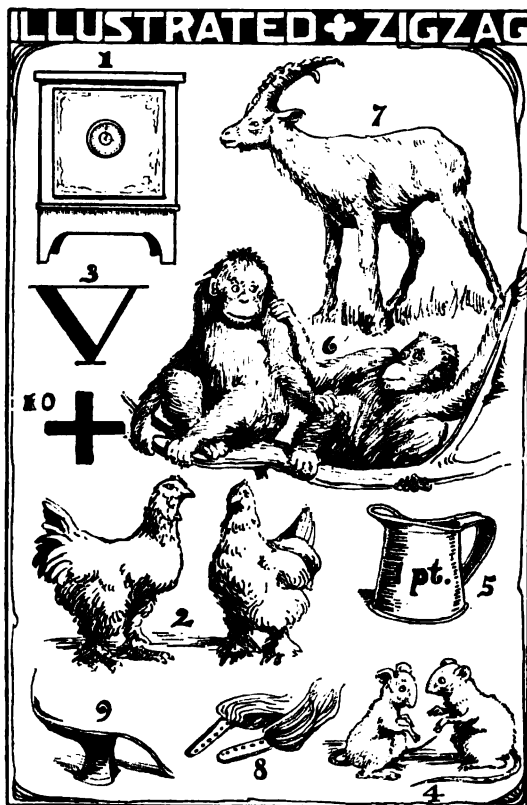
1, in perfect; from 2 to 3, an ugly old woman; from 4 to 6, a feminine nickname; from 7 to 8, at a distance; from 9 to 10, part of the head; from 11 to 13, to imagine; from 14 to 15, a variety of the sweet-potato; 16, in perfect; 7, in perfect; from 4 to 11, gloomy; from 2 to 14, a masculine name; from 1 to 5, a comrade; from 12 to 16, to consume; from 3 to 15, a ray; from 6 to 13, a vegetable; 10, in perfect.

DORIS E. WOODRUFF (age 12), *League Member*.

WORD-SQUARE

1. A BROWNISH clay used as a pigment. 2. Sixty-six feet. 3. To frequent. 4. To cleanse lightly with clean water. 5. To penetrate.

KATHERINE A. ADAMS (age 15), *League Member*.



ALL of the ten pictured objects may be described by words of equal length. When rightly guessed and written one below another, the zigzag (beginning at the upper, left-hand letter) will spell the name of a battle that was fought on the last day of May and the first day of June.

DOUBLE ACROSTIC

My primals spell the surname of a famous poet, and my finals spell a city in which he lived.

Cross-words (of equal length): 1. A sheriff's deputy. 2. A celebrated Italian painter. 3. A great river of South America. 4. To whine. 5. The god of the sea. 6. Pertaining to Iberia. 7. Wandering. 8. An antelope.

ELISABETH ALLEN (age 16), *League Member*.

DOUBLE BEHEADINGS

EXAMPLE: Doubly behead to please, and leave a limb. Answer, ch-arm.

1. Doubly behead a gentlewoman, and leave an obstruction. 2. Doubly behead to parley, and leave to consume. 3. Doubly behead the flesh of a pig, and leave to study. 4. Doubly behead to rest on the surface of the water, and leave a grain. 5. Doubly behead sharp and harsh, and leave to free. 6. Doubly behead an article of furniture, and leave a tune. 7. Doubly behead an

ancient language, and leave a metal. 8. Doubly behead a moment, and leave a cold substance. 9. Doubly behead inflated, and leave to possess. 10. Doubly behead a tendon, and leave novel. 11. Doubly behead a portable chair, and leave a masculine nickname. 12. Doubly behead a threshing instrument, and leave to be indisposed. 13. Doubly behead an inlet from a southern river, and leave a pronoun.

When the thirteen words have been rightly guessed and beheaded, the initials of the little words remaining will spell a welcome time.

BERTHA WINKLER (age 14), *League Member*.

TRIPLE ACROSTIC

EACH of the words described contains three letters. When rightly guessed and written one below another, the first row, reading downward, will spell the surname of a famous French actor; the second row, a mountain nymph; the third row, what many are hoping for.

Cross-words: 1. A toy. 2. A common verb. 3. A grassy field. 4. A prefix to many Scotch names. 5. A suffix.

LOUISE TODISS (age 14), *League Member*.

COMBINATION PUZZLE

ALL the words in this puzzle contain the same number of letters. When rightly guessed and written one below another, the primals will spell the surname of a President of the United States; the diagonals, from the upper, left-hand letter, to the lower, right-hand letter, will spell the name of a useful tool.

Cross-words: 1. To grapple. 2. A bowman. 3. A freeholder. 4. Room to pass. 5. That which opens. 6. To disclose.

NORRIS TUTTLE (age 12), *League Member*.

KING'S MOVE PUZZLE

(Silver Badge, St. Nicholas League Competition)

1	2	3	4	5	6	7	8
L	A	B	I	E	R	E	N
9	10	11	12	13	14	15	16
M	E	R	M	D	D	O	M
17	18	19	20	21	22	23	24
R	Y	A	A	M	L	I	U
25	26	27	28	29	30	31	32
O	J	R	M	A	I	R	R
33	34	35	36	37	38	39	40
I	T	E	R	M	A	E	I
41	42	43	44	45	46	47	48
R	U	G	Y	M	L	M	Y
49	50	51	52	53	54	55	56
E	L	L	M	E	G	M	A
57	58	59	60	61	62	63	64
O	M	D	U	A	I	G	A

BEGIN at a certain square and move to an adjoining square (as in the king's move in chess), until each square has been entered once. When the moves have been rightly made, eleven feminine names may be spelled out. The names all begin with the same letter, and the path from one letter to another is continuous.

LUCY D. THURSTON (age 14).

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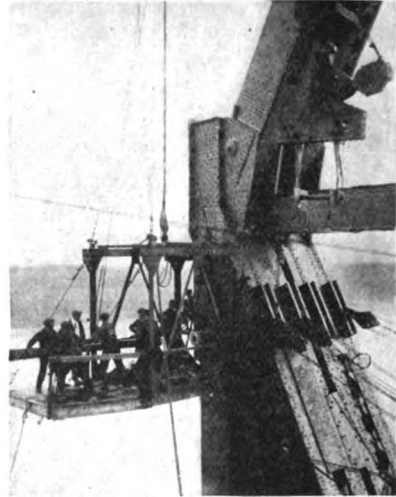
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for

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Photograph by Henry Dixon & Son.

THE ROSE.

FROM A PORTRAIT BY MRS. M. L. WALLER.

ST. NICHOLAS

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JUNE, 1916

No. 8

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TENNIS FOR GIRLS

BY MOLLA BJURSTEDT

NATIONAL, CLAY COURT, INDOOR, METROPOLITAN, MIDDLE STATES,
TRI-STATE, ETC., CHAMPION IN SINGLES

I CANNOT imagine a better game for girls—little girls, big girls, girls of any size or age—than tennis. I think young girls should have plenty of outdoor exercise, and the best way to take exercise is in some competitive game which is violent enough to set the blood tingling, and yet not so violent as to bring the risk of physical injury. Tennis has all the good qualities of a game for girls; you can play it just as hard or just as easily as you like, and I do not know any way in which even the weakest girl can do herself any injury.

I think more girls are now playing tennis than are playing any other game. Tennis-courts are scattered all over the country, and are monopolized by the girls in the mornings before the boys and the men are free or have a chance to play. There is no age limit on tennis; as soon as a girl can hold a racket in her hand she can play the game in some fashion, and she can keep on playing until she is too old to hold a racket. I know many mothers who regularly defeat their grown daughters and are just as keen about the game as the daughters themselves.

Many girls imagine that tennis is a very easy game, and that it consists in "popping a ball" over a net which divides a carefully marked stretch of grass, dirt, or clay. Get rid of this notion at once; the net and stretch of land are all right, but the "popping of the ball" is all wrong. Every ball in tennis should be hit, and hit as hard as your strength will let you; and in addition to being hit, the ball should be hit to a definite place

in the opposing court. There is no hit-or-miss about tennis.

Hitting the ball sounds simple; but there is a right way and a wrong way to hit it. In the wrong way you use unnecessary strength and trouble and probably do not achieve the result that you are after; in the right way you use comparatively little strength, while you gain speed and also control the flight of the ball. Style in tennis is hitting the ball in the right way. Sometimes one imagines that style means the fancy way of executing a stroke; on the contrary, style is that method of execution which, as experience has taught us, uses up the least physical strength and gains the most accurate results.

You would not disregard the instructions about finger movements when you learn to play the piano; and you can no more learn to play tennis while disregarding the proper movements than you can play the piano without the preliminary finger exercises. You will enjoy tennis far more if you play it well than if you play it poorly. Therefore, in taking up tennis, start right—learn the right way to do things. Then you can improve your game by experience and have a deal more fun than if you continue floundering about the court merely for the want of a little preliminary training. Style is not only for the girl who hopes to win national titles—it is for every one who hopes to have a good time in tennis. And I know of no game in which so much fun is to be had.

When you take up tennis, buy your own racket

and be sure that it suits you. A grown girl will need a thirteen- or thirteen-and-a-half-ounce racket, but a younger girl may well take a racket an ounce lighter. The handle should be small



MISS MOLLA BJURSTEDT.

The only woman who has ever held all of the singles championships in the United States at one time.

enough to permit you to put your fingers quite around it. A large handle will prevent a firm grip, and too heavy a racket will quickly tire the forearm. The stringing of the racket should be very firm, or the ball will not go away from it true and fast. I find that very few young players devote enough attention to procuring a suitable racket; they are apt to buy one that they think pretty or because they like the name. But a racket is not a toy; it is the tool with which you play the game. Buy the most expensive racket that you can afford; the expensive rackets have better frames and stronger gut than the cheap ones, and they pay in the end. When the racket is not in use, it should be kept in a press, which can be bought at any store dealing in sporting goods; the press keeps the frame from warping, which destroys the alinement of the racket and its accuracy.

Strokes are divided into forehand and backhand. If you are right-handed, the forehand strokes are those taken on the right; the backhand strokes are those taken on the left. Strokes are further divided into ground strokes and volleys. The ground strokes are those in which the

ball first bounces on the ground before being hit, while in the volley the ball is hit before it has touched the ground.

Most beginners think that the service is all-important; but the most important strokes for any player to know are the drives. When you first take up the game, consider the service as only the stroke which puts the ball into play; you will never become a good player merely by having a swift service. The better players will receive a hard service more easily than they will receive an easy service; a hard service bothers the beginner only. But if you learn how to drive well, you will be able in time to hold your own with any player.

The drives—forehand and backhand—are apparently the easiest of all tennis strokes, but in reality they are the hardest to execute well. You should practise them everlastingly. They are not made by the mere force of the arm, but result from a combination of the weight of the body and the strength of the arm at precisely the right moment.

First learn to hold the racket: For the forehand strokes take the racket at the very end of the



THE POSITION TO RECEIVE A RETURN.

The body poised and the racket resting in the left hand to take the strain from the right arm.

handle, and, with the leather resting against the base of the palm, clasp the fingers strongly about

the handle, the thumb closing across it. This is the grip for all forehand strokes. For the backhand strokes shift the thumb until it extends straight out on the handle and supports the racket for the more awkward motion of the backhand; this shift will become almost involuntary after a little practice. The grips are extremely simple, but it is hard to learn to handle a racket properly unless you carefully learn them.

Now for the drives: Face the line of the flight of the ball; that is, if you are playing on a court, your side will be toward the net. Rest your weight on your right foot, swing your racket well back, and, as the ball rises toward you, bring the racket through with a wide sweep, at the same time going forward with your body. The racket and the ball should meet when the racket is straight out, and at that moment your body should be going forward. After the ball has been hit the racket continues through a half circle, without hesitation, until it is across your body. This motion after the ball has left is known as the "follow through," and is of the highest importance. It aids in securing an even stroke, and thus helps to direct the flight of the ball.

The backhand drive is the exact reverse of the forehand; the weight of the body rests on the left foot at the beginning, and the finish of the stroke finds one on the right foot; the stroke starts with the racket across the body, and at the finish the racket is far out to the right.

In both of these strokes the force comes from the exact union of the forward movement of the body and the sweep of the arm at the moment of impact with the ball. This exact timing is a matter of practice; when you have achieved the right timing, you will find that you drive the ball hard with little effort. The whole motion is a kind of sweep forward; the wrist only comes into play as the ball leaves the racket; then a slight turn of the wrist will control direction.

The drives had best not be learned in a game; if you play a game too soon, you will find yourself trying to hit the ball "any old way" and for-

getting all about form. The best practice will be had by having some one toss you balls from an easy distance until you have acquired the proper movement of the feet, body, and arm. Any one who dances can easily manage the foot work. After you have learned the motions, have balls struck to you across the net and begin to try to hit the ball with careful stroke to a certain place in the court. Do not try for speed; speed will come later. Your first thought is to master the

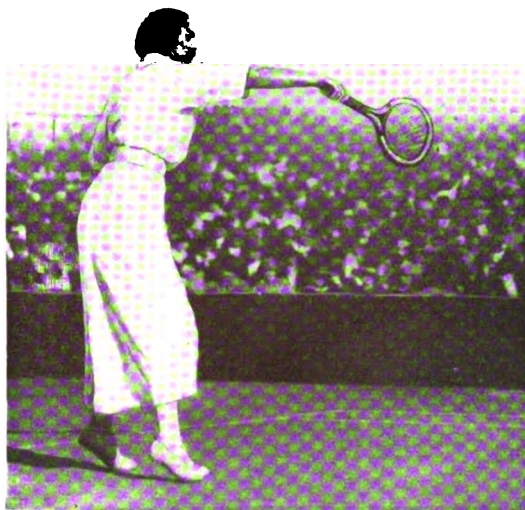


THE FINISH OF A BACKHAND DRIVE SHOWING THE COMPLETE SWEEP OF THE FOLLOW-THROUGH.

simple motions, and the next to make the ball go to the place that you pick out.

Excellent practice may be had against a brick wall or other smooth surface that has a level stretch of ground in front of it; by hitting the ball against the wall you can gain no end of practice in the motions of driving, although you will not improve your accuracy. The advantage of this practice is that it may be taken alone. Anthony F. Wilding, the English and Australian champion, who was killed at the Dardanelles, learned all his splendid strokes by practising alone in a room.

The drives are the most important strokes of the game, and I should advise you to learn them thoroughly before you start to play a practice game.



IN THE MIDDLE OF A BACKHAND DRIVE.
The weight of the body is going forward to the right foot.

After you know the drives well enough to use them in actual play, then take up the service.

There are two kinds of service—underhand and overhead. By all means learn the overhead service; it is quite as easy as the underhand and very much more effective, because the ball starts from you high in the air and its chances of falling in the service-court are by that much improved.

Take a position a foot behind the base-line—the boundary line of the court at the end. If you are going to serve into the opponent's right-hand court, stand a couple of feet to the right of the center of the base-line. If you are about to serve into the left-hand court, stand to the other side of the center-line. Poise on your right foot; with your left hand toss the ball four or five feet into the air. Swing your racket up and back and come down on the ball as it descends. Finish forward on your left foot. Do not seek speed, and do not venture the fancy services; be content to hit the ball into the service-court at some definite point.

In every stroke of tennis the ball should be hit to a predetermined point. The service, the drives—every stroke, no matter how well executed, is a bad stroke if the ball does not go to the place that you intended to have it reach.

I would not advise the young player to bother with more than the service and the drives, but you will sometimes find a short ball that you can hit before it bounces and thus gain time. Then you use the volley. The volley is a hard stroke

to execute well because it must be made much more quickly than the drive and you do not have the same chance to make ready. Never volley unless you are within five feet of the net, or you will hit the ball into, instead of over, the net; the closer you are to the net, the more chance you have to make a clean shot. There is no particular stance or foot work for the volley except that you should always be running into and not away from the ball as you make the stroke. It is not so much of a hit as a push with the racket; frequently it will be enough if the racket merely blocks the ball.

Tennis is a game of strategy, and if you use your head when you begin to play, you will find yourself winning a surprising number of games. The whole idea of the game is to place the ball where it is hard for your opponent to reach it, or where she will have trouble in making a good return.

Take the service: If your opponent plays the forehand stroke well, send your service on her backhand; if she runs around the service to return it with a forehand stroke, send your next return far over to the other side of the court so that she will have difficulty in reaching it. If after a few services to the backhand she stands



MRS. MAY SUTTON BUNDY FINISHES A FOREHAND DRIVE.

Mrs. Bundy, formerly champion of the United States and England, and Miss Bjurstedt are the two hardest drivers in the world of tennis women.

far to the side in order to use her forehand, send the next service down the center-line and you will probably score an ace.



MISS BJURSTEDT FINISHING A FOREHAND DRIVE.

Showing the proper position of the feet and the length of the follow-through of the racket.



She has put the whole weight of her body into the stroke and is just about to come to rest on her left foot.

Keep watching the ball and your opponent, and make up your mind where you are going to send your next return. "But," you will say, "it is all that I can do to reach the ball, and I am glad enough to hit it anyway; how am I going to take my time to find a place?" If you always watch the ball, you will soon be able to tell from the position of your opponent's racket and the glance of her eyes where the next ball is coming and to start toward that point.

The best style of play for girls is that known as the "base-line" game. In this style you play most of your strokes from the base-line. After you have served stand behind the center of the base-line until you can determine the direction of the return; when you have made your return, go back to position—otherwise you may be caught off in one corner of the court and lose the point. When receiving service, stand behind the base-line, back of the proper service-court, and when you have made your stroke, again take the position behind the center.

Your object in driving will be to take your opponent out of position. Drive first to one side-line and then to the other, and play the ball to your opponent's backhand rather than to her forehand. Try to avoid giving her any kind of stroke which she finds it easy to play. Most girls are weak on their backhands, and therefore you should practise to strengthen your own back-

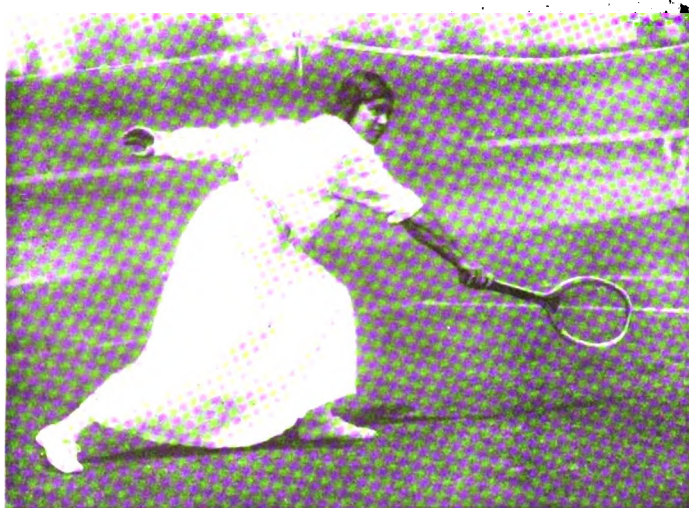
hand; never favor the backhand in order to use the forehand—if you do, you will never acquire a strong backhand.



MISS BJURSTEDT STARTING THE FOREHAND DRIVE.

Her racket is just about to hit the ball.

Taking position after each stroke is important; and you should especially guard against being



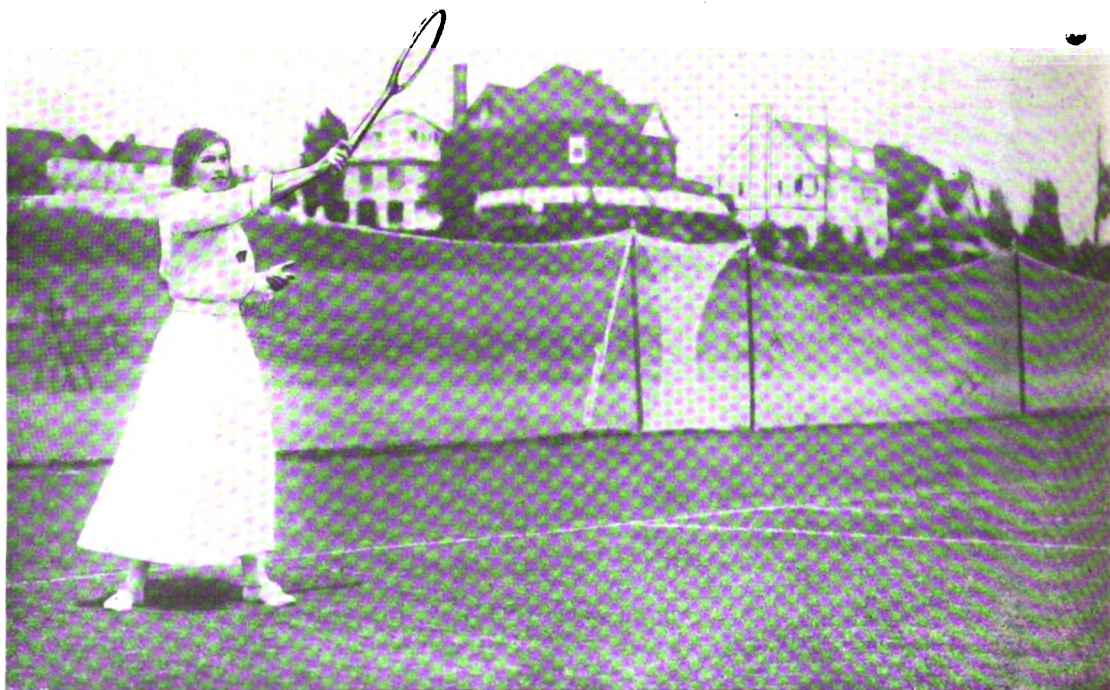
THE POSITION FOR A LOW BACKHAND VOLLEY FROM MID-COURT.

caught in the space between the base-line and the service-court. That is forbidden ground. No one can make a proper return from that point.

partner as to the part of the court each will cover and rigidly adhere to this scheme; to "poach" on the partner's territory always leads to disaster.

By the same token, you will try to lure your opponent into that position and send the ball right at her feet; if she hits it back from there, it will be due simply to good luck. But generally try to make your driving long, try to hit just inside the boundaries of the court; the long game brings the best results in the end.

When you play doubles, you should volley. It will be hard at first, but not so hard as in singles. When one girl serves, the other stands at the net and returns on the volley the balls which come to her. She should care only for her own side of the net; the girl who is serving will look after the rest of the court. When receiving service, both players should stand back of the base-line and then go forward to the net when they see a good chance to score. Before every game of doubles you should agree with your



MISS BJURSTEDT EXECUTING AN OVERHEAD VOLLEY.

Most girls like to play doubles because they think it easier than singles. As a matter of fact, it is not easier than singles if you play the game properly; and in addition, you will not gain so

that point, and if you quit, you will have more endurance for the next set.

But above all things play a sporting game. If you cannot play tennis except to win—if you cannot play for the fun of playing, give it up altogether. Too many girls become angry when they are beaten and say harsh things about the girls who have beaten them. If you find such a



THE MOMENT BEFORE STRIKING THE BALL.
ON THE SERVICE.

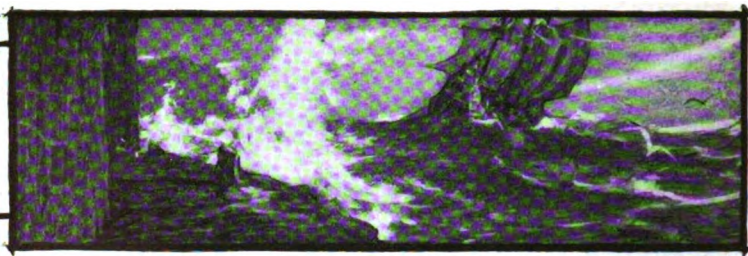


FINISHING OF THE SERVICE. THE RACKET
CARRIED ALL THE WAY THROUGH.

much general knowledge of tennis nor will you gain so much self-reliance as in singles. I know girls who will only play doubles; these girls make a great mistake, for they will never learn to play a first-class game of tennis.

I can see little danger of overplay for the average girl; I think nature will cause you to stop when you have played enough; but if you are particularly plucky, you may play on after you are very tired indeed. Of course, if you are playing a match, you cannot stop; but I would suggest stopping practice when you find yourself tired. The practice will do you no good after

spirit in you, crush it out at once. Always congratulate a girl who wins from you, and mean what you say. To become angry while being beaten or after you have lost is poor sporting spirit. You will find that not only will your game improve, but you will have infinitely more fun if you play only for the exercise; and, although you should play your very hardest, take the result as it comes. Do not be conceited when you win nor angry when you lose.



"Souther, Wind, Souther!"

By Clara Platt Meadowcroft

LIGHTLY walked the Wind at twilight, lightly then he fell asleep;
But at midnight he rose shouting, spanned the towers with a leap,
Springing seaward: in the morning all the ocean flowered in foam,
Where my father's ship lay tossing, fair in sight of land and home!

At the casement stood my mother, and she would not turn her head;
Though she kissed me when I begged her, not a single word she said.
So I ran away for comfort such as Griflet always knew:
"Griflet, is there nothing, *nothing*, that a little lad can do?"

Griflet's face was brave and smiling (for a jester must be gay).
"Prince Beaumain can learn the storm-spell that the fisher-children say,
When the North Wind locks the harbor and the boats are shut outside.
Come, we 'll seek the Wind right boldly where he walks in power and pride."

Up we climbed, round winding stairways, to the ancient sentry-tower;
To the battlements we hurried, where in all his pride and power
Walked the great North Wind; and Griflet held me close and taught to me
The little rhyme the children say whose fathers are at sea:

"*'Souther, Wind! oh, souther! souther!'* From the southward softly blow.
'Blow my father home to mother!' Oh, if you could only know
'T is his little boy who 's asking, I am sure you would be kind,
And would bring him safe to harbor, *'O Wind, souther! souther, Wind!'*"

Came a sure and happy feeling, and we clambered down once more.
Suddenly there rose a shouting from the folk along the shore;
Up and down the beach they hastened, calling through the stormy din:
"Praises be! the wind is changing, and the ship is coming in!"

Southerly and soft the Wind came, smoothing out the foamy blue,
Blowing Father home to Mother just as we had asked him to.
Griflet shook his bells and capered, and we danced for joy, and then
Hand in hand we climbed the tower to the battlements again.

Soft and southerly the Wind came, blowing straight to where we stood:
"Thank you, Wind! a million thank-you's! Oh, but I was sure you would!"
Low the Wind laughed, passing friendly, then he made a sudden leap,
And far down among the tree-tops lightly rocked the birds to sleep.



"GRIFLET HELD ME CLOSE."

THE FISH THAT TOOK THE MEDAL

BY WILLIAM HERVEY WOODS

"IDAHO 's bounded on the north by Dominion of Canada 'n' Montana, on the east by Montana—by Montana 'n' Wyoming, on the south by—by—"

The droning whisper had become more and more broken, and now ceased altogether. Tom Headley had laid down his atlas and was looking out of the open school-room window.

Outside, the orioles were singing in the sunny afternoon, and dandelions blazed among the springing grass. The straggling country lanes were white with fallen bloom and vocal with the music of innumerable bees; and Capon valley, throughout all its misty length, was filled with the warmth and perfume of the spring.

But the geography lesson was of great importance, and Tom soon brought his thoughts home, and, beginning again his singsong, kept it up until a thing happened that drove the lesson out of his head. As he glanced toward the river, which lay just at the foot of the hill, he saw something flash into the air and then drop back into the water with a faint splash. At once the sportsman's instinct awoke and tingled in Tom. The bass were playing on the ripple, and, watching them, he thought no more of the geography, until, with a start, he heard the class called up for examination.

He took his place with some misgiving, but he managed to hold his own until the other scholars had dropped out one by one, and he and Elizabeth Martin alone were left.

Elizabeth, two years younger than Tom, and as shy and gentle as a wood-mouse, had been, throughout the session, his chief competitor for the school medal. So close had been the race between them that they had come to the very end of the term still fairly even. This examination on geography, the last one of all, would determine which of them was to take the prize.

The contest grew exciting. In his calmer moments Tom did not really want to win from Elizabeth. In spite of their rivalry they were the best of friends, and the very thing that Tom admired most in the little maid was the girlish cleverness that disputed the first place with himself. But now as they stood there facing each other in the silent room, each in turn rattling off the answers, the joy of strife grew upon him, until, almost unconsciously, he was doing his best to win.

But that did not save him. "Bound Idaho," said Mr. Cole at length, and Tom started off glibly enough. But at the southern boundary he faltered

and he felt his face begin to burn. "On the south," he stammered, "by—by—by Utah 'n' Colorado—"

"Next!" said Mr. Cole; and Elizabeth, with flushed cheeks and little panting sentences, shifted the big western States into their proper places, and—won the medal.

That was the last day of school. On the next day but one, the annual "exhibition" would be given; and then, among the usual exercises of such an occasion, the medal would be publicly presented to the winner.

Mr. Cole had asked Tom to wait after the others had gone. "Is n't your father going to Winchester to-morrow?" he asked, as he locked the school-room door.

"Yes, sir," answered Tom.

"Then I wish you would ask him to take this down to the jeweler," said Mr. Cole, "as I want the name put on it. When I ordered it, I did not know whose name it was to be. I hope you don't take the loss of it too hard, Tom," he added kindly.

"Me? No, sir," was the quick reply. "I 'm glad 'Lizabeth won it."

"Ah! Well, perhaps it will be your turn next time, my boy," Mr. Cole said cheerfully as he turned away.

Tom's home was on the other side of the river, and, instead of going around by the bridge, he went across the fields, as he usually did, and came to the river at the lower end of a long and deep pool. Here lay his canoe, and getting into it, he pushed out into the stream. Then he stopped paddling, and, boy-like, sat idly looking around him while the canoe went loitering down the glassy pool.

The fresh scent of the water was in the breeze. A water-snake swam leisurely across the stream, stopping at the boat to dart his tongue at Tom until threatened with the paddle. Down on the ripple a fish leaped into the air, and a kingfisher went chattering from one dead limb to another in a flashing curve of blue.

The bird reminded Tom of the little blue box in his pocket, and he took it out. It was not wrapped nor fastened in any way, and Tom could not resist the temptation to steal a look at 'Lizabeth's prize. He opened the box and took the shining gold star out of its bed of cotton. Never before had Mr. Cole offered a prize so handsome; and Tom looked at it with admiring eyes.

He was still intent upon it when the wind blew his hat off, and, as he leaped to catch it, the star slipped from his hand and flashed into the river. He saw it strike on the sunken ledge over which the boat had drifted, and then glancing off, go twinkling down until, even as he watched, a shadow darted toward it from under the rocks below, and the medal vanished from sight.

The water was perfectly clear, and Tom searched the bottom long and anxiously; but he did not find the trinket. Indeed, he had had no hope of finding it. He knew from the first what that darting shadow meant. The medal had been swallowed by a huge black bass.

It was a troubled boy who, fifteen minutes later, pulled his canoe up the bank and hurried away over the hill toward home. He told no one of the accident; but the odd jobs that usually kept him busy until dark to-day were quickly disposed of, and Tom put out for the river again.

Fishing was his favorite sport, and, boy as he was, he was already accounted one of the best anglers on Capon River. But to-day there was little hope and no sport in the thing he had to do. What was he to say to 'Lizabeth if he did not get that medal back?

He paddled his boat a little way up-stream, and, anchoring noiselessly, put his rod together and began to cast.

He had the knack of it. The slender rod moved backward and forward almost mechanically, and he dropped the flies on the water where he would, apparently without an effort. But there was no response. One by one he tried all the angler's arts, and still in vain. Then he changed his flies and began over again.

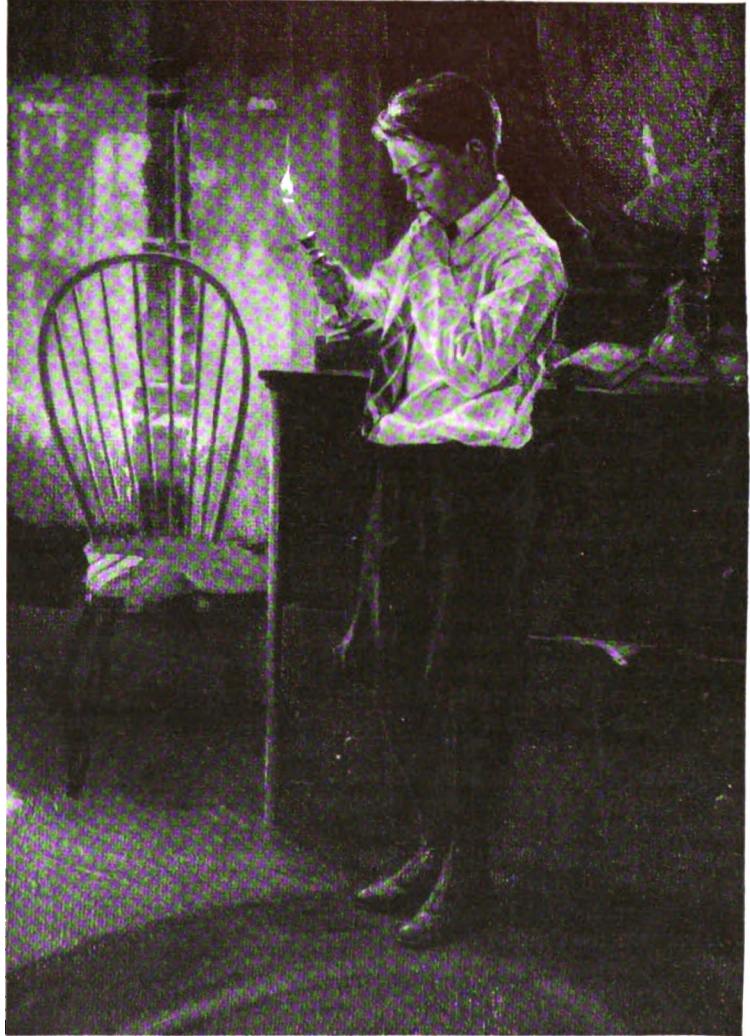
Now there was a rise, and Tom's face brightened, only to cloud again the instant he felt the fish. It was not the big one.

Darkness was coming now, but he was loath to give up. He had, indeed, by this time taken several fish and at any other time he would have been well pleased with the evening's catch; but not that night. He went home at last in such a mood

that his mother came by and by to his bedside. She said, "I did n't think my boy would begrudge the medal so much to 'Lizabeth."

"I don't begrudge it. 'T ain't that, Mother."

He turned his face to the wall, and his mother went away. He was glad she did. If she had



"HE WAS STARING AT THE CANDLESTICK." (SEE NEXT PAGE.)

talked to him much, something would have happened; and Tom despised, above all things, a boy who turned "cry-baby."

Mr. Headley was away from home until late that night. "Tom," he said at breakfast the next morning, "Mr. Cole asked me last night to take that box to Winchester. Have you got it?"

"I—I— Yes, sir, I 've got the box," was the mumbled reply.

"Well, I find I can't go," Mr. Headley con-

tinued, "and after breakfast I want you to take the box down to Mr. Yates. He 's going down to-day, and will attend to it. You come straight home again."

But it was nearly noon before Tom was seen again. Then his mother, looking out of the window, saw him come slowly into the back yard. The young chickens were running about everywhere, and Mrs. Headley saw Tom suddenly stoop, snatch one of them, and walk away with it. He did not go far, however, before he stopped, and, after a moment's hesitation, put down the chicken, which ran peeping back to its mother.

"What are you doing there, Tom?" said Mrs. Headley. "Are you just now getting back from Mr. Yates's?"

Tom came toward her. "I have n't been to Mr. Yates's, Mother," said he.

"Then where have you been all this time?"

"I 've been down to the river," was the answer; and then the whole story came out.

"I 've been down there all morning," Tom concluded, "and all for nothing. I 've tried every way in the world to catch that old—"

"Tom Headley, do you mean to tell me you were going to *fish* with that little chicken?" his mother demanded.

"No 'm. Leastways, I let him go again, 'deed I did, Mother. But what 's a fellow goin' to do?" asked the boy, desperately. "That medal cost seven dollars, and I have n't got a cent. And I 'most told Father a lie, too!"

His voice broke in spite of him, and the gray eyes, which his mother was thinking to herself the handsomest eyes she knew, were just then suspiciously bright. Indeed, they had reason to be. Tom and his fish between them had wrought serious mischief, and Mrs. Headley herself saw no way out of it. One thing, however, was clear to her. "I would tell 'Lizabeth and Mr. Cole, my son," she said, "and I would do it now."

That was the thing Tom hated most, especially telling 'Lizabeth; but it had never occurred to him to do anything else. He set about it at once.

He found it even harder than he had thought. 'Lizabeth did not say one word as he stumbled through his story, but sat quite still, with her big eyes fixed on his face and something in her white throat beating hard and fast.

"Don't!" he cried out at last. "Don't look at me that way! I 'd a heap rather you would cry about it!" and forgetting his manners altogether, he got up and fairly ran out of the house.

Mr. Cole was not at home, much to Tom's relief. He left a note for the teacher, and, by keeping busy, managed to pass the remaining hours of the day.

"Mother, do you know where my candle is?" he asked, not long after supper.

"Here it is," she said. "I was scouring the candlestick to-day, and I forgot to put it back in your room." She gave it to him, and he went off up-stairs to bed.

He stopped for some time on the landing, and his mother wondered what he was doing. She would have wondered still more if she had seen him in his room. He was standing before the bureau, staring with the liveliest interest, not at the candle, but at the candlestick. It was a very plain one, old, and battered with long use; but it had been polished until its wide brass bottom shone again.

That candlestick put strange thoughts into the boy's head. As he looked at it he began at last to whistle, for the first time since his trouble the day before; and Mrs. Headley, who knew he had gone to bed unhappy, slipped into the room after a while to find him already fast asleep.

The next morning the Headleys intended to drive over to the exhibition in the rockaway, but Tom asked to be allowed to walk.

"Don't wait for me, please, Mother," he said. "It 's a heap nearer across the fields, anyway."

Mrs. Headley did not attend particularly to what he was saying; but when she was ready to start, she found Tom hammering away in the shop with the door locked. "What are you doing in there, Tom?" she said, as she rattled the door. "It 's high time you were getting ready."

"Yes 'm. I 'm coming. Don't wait for me," he answered; and presently the rockaway drove off without him.

It was a good deal later when Tom came out of the shop, and, without waiting to put on his Sunday clothes, set off at a rapid pace. He ran, indeed, much of the way to the river; but there his haste seemed to end, and he sat down in the canoe and fanned himself with his hat. But that was only for a moment. Then he took out of his pocket the fruit of the morning's labor.

It was a star, rudely cut out of brass, but polished until it shone again. Slowly and carefully he tied a bass-hook to it and made the whole fast to his heaviest hand-line. That done, he stood up in the canoe, drew a long breath, and threw the glittering lure far out into the stream.

He cast twice, drawing the lure home swiftly each time without result. He threw out the third time, now a little up-stream, and again had begun to retrieve when suddenly his arms flew out straight and he bent far over the gunwale with a ringing shout. The sagging line had stiffened to a bowstring—the big fish was hooked, at last!

One mighty tug, and then the fish leaped high

into the air, his bronze sides flashing in the sunlight and the spines in his backfin standing up as straight and stiff as spear-heads. He leaped repeatedly, falling back into the water like a plunging dog, and varying the program with furious rushes to and fro. There was no chance to play him. Tom had simply to hold hard and bide his time, taking line when he could and giving it only when he must; but he had never seen such a

THE exhibition was almost over. The last item on the program, the presentation of the medal, had now been reached, and Mr. Cole rose to speak.

The school-room could not hold all the people present, and a crowd of men and boys surrounded the open windows. They quickly gathered that something unusual was going forward.

"What 's that he 's sayin'?" a man outside asked of his neighbor in the window. "'Dropped it?'— Here, you fellows, quit that crowdin'!— Who dropped it, Sam? Sho, now. Say, fellows," said the outsider, turning to his companions, "Headley's boy 's dropped the medal in the river."

"Here 's Headley's boy, now," said another voice. "My land, what a fish!"

It was indeed Tom, hurrying up the path and carrying the big bass, the great fanlike tail trailing along the ground.

"Is the exhibition over?" he asked anxiously.

"No, sir. Jest waitin' till you got in from fishin'," was the jocular reply.

Tom drew 'Lizabeth's medal out of his pocket.

"Here, Ben," he said simply to one of the crowd that had gathered around him. "Wipe it off with your handkerchief and take it in to Mr. Cole. I can't go in. I 'm not dressed up, and, besides, I 'm all wet."

But he had to go in, however unwilling, and tell the amused and wondering people how he had recovered the lost prize.

"And this is what you did it with!" said Mr. Cole, holding up the home-made star. "Come here, sir. You deserve a medal

yourself!" And, in spite of Tom's embarrassed protest, he pinned it on him amid great applause.

As he did so, Mrs. Headley caught sight of certain peculiar marks on the star, and, leaning over, examined them closely, somewhat to Tom's discomfort.

"You scamp!" she said, laughing, as she gave him a little pat on the shoulder, and, turning to 'Lizabeth's mother, she added behind her hand, "The boy has cut up my grandmother's candlestick!"



"THE SAGGING LINE HAD STIFFENED TO A BOWSTRING."

fish, and he began to fear that even his heavy tackle would not hold.

He did not know how long the fight had lasted when he got up to lift the anchor into the canoe. The bass had made a dangerous rush in that direction, and Tom was afraid he might run under and foul the line in the anchor chain. The boy had just stooped over the chain when a great jerk took him unawares. He staggered, for a moment clutched wildly at the air, and then, with a cry, fell headlong into the river.

OUT OF PROSERPINE'S APRON

BY GARNET NOEL WILEY

Out of Proserpine's apron,
Leaping and laughing they come.
Buttercup smoothing her petals,
Grasshopper sounding his drum;
 And little fern tucking
 His round head, and sucking
The tip of a tiny brown thumb.

Out of Proserpine's apron
Come little gossamer things
Donning their bonnets of scarlet,
Tying the golden strings;
 While butterflies, soaring
 In clouds, come up-pouring
On sapphire and silvery wings.

Out of Proserpine's apron
Tumble the blossoms and bees—
Something else tumbles beside them
That only the little child sees;
 Something that haughtily,
 Friskily, naughtily
Idles away on the breeze.

Out of Proserpine's apron,
A-lifting their mushrooms high,
Lest little noses be sunburned,
The fairies come mincing by;
 And there's nobody knows
 But the bird and the rose
And the lad with the laughing eye!

LONG, long ago the people of Greece believed that earth and heaven were ruled by powerful fairies. They called these fairies gods and goddesses, and gave them beautiful names. A goddess named Ceres ruled the plants and trees and made them do her bidding. Pluto ruled over everything inside the earth and beneath it. He was gloomy and selfish, and lived in a dark palace under the ground.

The Greeks also believed that once upon a time there had not been any winter, but summer always, with nodding flowers. Then Pluto did Ceres a cruel wrong: he stole her beautiful little daughter Proserpine, and carried her away in a chariot drawn by fiery horses to his palace under the ground.

Mother Ceres felt such grief that she forgot to attend to the trees and grain, and they withered and died. She spent the days running up and down the earth, calling Proserpine, and as her tears fell they changed into snow and covered the earth with a white rime. She was so wretched that at last she put a curse upon the earth and told the flowers that they might not come up again until they felt the pressure of little Proserpine's feet above them.

The birds had no fruit nor grain to eat. The squirrels had no nuts. Little children, who are fed upon all of these things, cried for hunger, and wondered if the cruel winter would ever come to an end.

The other gods and goddesses were so sorry for the poor children that they determined to help them; so they told the god Hermes, who had wings on his feet and could run very fast, to go and bring Proserpine home.

Now Proserpine had made a vow that she would not eat nor drink while she was in the dark palace, and Pluto knew that if she broke this vow she could not return to her mother Ceres. So the king sent his servants to search the whole world and bring back delicate fruits that he might tempt her to eat.

When they returned they told of the blight that Ceres had put upon the earth, and brought with them only a single wrinkled pomegranate—all that was left in the frozen world.

Home-sick Proserpine caught the pomegranate in her hand, because her dear mother had made it grow, and put her little teeth into the bitter rind. At that very moment Hermes arrived—but alas! Proserpine had swallowed six of the pomegranate seeds, and for each of these she must spend one month out of the year in King Pluto's palace beneath the earth.

This is how the Greeks explained the seasons: autumn, with its rains, was the time of Ceres weeping for her child; winter's snows were when she cursed the earth; and these together made the six months that Proserpine must remain under the ground. Beautiful spring was the time when Proserpine journeyed homeward, for you must know that Hermes took her by the hand and led her back, and whenever her flying feet touched a flower, it lifted its head above the ground and opened its eyes to look at her. Birds perched upon her shoulder, and butterflies clustered around her. All of these, and all the precious flowers, she gathered into her little apron, and when she shook them out over the world and ran into Ceres' outstretched arms, summer-time had come indeed!

G. N. W.

A STRANGE REFUGE

BY PAUL LELAND HAWORTH

WE were camped on the south side of the Brazeau-Pembina divide trying to keep on the best side of an unseasonable blizzard, and my Swede packer Nels Hansen and my guide Claude Lefranc whiled away the hours telling yarns about their trapping experiences. Claude was a half-breed Cree who had been born in the bush, but had been educated at a mission-school and then at a college in Quebec. He spoke English almost without accent and in most respects was entirely civilized, but the wild, free life of the open appealed to him too strongly for him to be able to settle down to the white man's humdrum existence.

Much of their talk was of the beaver and his wonderful ways and works; of how he gives warning of danger by slapping the water with his flat tail; of how he always selects exactly the proper site for his dam of sticks and mud; of how he will dig canals hundreds of feet long to enable him to float to his lodge the ash, birch, maple, and poplar limbs that form his winter fare; of how along such canals he will even build dams which serve the same purpose as locks on man-built waterways. For some time they discussed strange notions about him. They differed, however, as to whether an old beaver sleeps with his tail in the water in order to receive warning of the breaking of his dam. Hansen thought that the beaver does so, but Claude declared the alleged habit a pure myth.

"At any rate, the beaver is a great friend to the Indian," said Claude, when the discussion began to flag. "His meat is good to eat, rich and greasy; and with his fur the red man buys guns, powder, lead, tobacco, knives, and blankets. But I would never kill a beaver; and I will tell you why.

"It was when I was a boy of eleven, before I went to mission-school and learned to read, write, and play the big bass drum in the band. How I did thump that drum, *boom, boom, boomety, boom!*

"One day in late summer, when the young ducks on Lake Wabamun where we were camped were just beginning to learn to fly, my father said to my mother and to my uncle Mistawassis, who lived with us:

"To-morrow let us set forth for the mountains. The mosquitos, the no-see-ems, and the bulldog flies are bad here, but among the snow-peaks they will not trouble us nor our ponies.

The grass will be good on the flats of the Brazeau and about Medicine Lake. We can kill plenty of bighorn sheep at the Great Lick beneath the tepee-roofed mountain, plenty of goats and caribou and jumping deer. You, my wife, can pick berries on the hills to mix with bear and caribou fat.'

"When we heard his words, we children began to leap about with joy, for we were tired of having almost nothing but fish to eat, and on still nights the mosquitos almost ate us alive. Besides, Indian children always love to wander. There were six of us, I being the oldest. Marie, the next, was ten, and little Pierre had been born that spring. Our mother had given us all white names.

"When at last we took the westward trail, we made a long procession. Father and Uncle had more than twenty grown ponies, besides many colts and yearlings. It was well that we had so many, for Uncle Mistawassis, though a good hunter, was very fat, and had to change ponies three times a day at least. Mother and three of us larger children each had a horse, little Pierre was carried at my mother's back, and the two other young children rode on top of the packs, tied on so that they could not fall off. On another of the packs was also fastened a brood of puppies. A dozen older dogs trotted ahead along the trail, or ran through the woods flushing grouse.

"The length of a day's journey depended upon the distance between good camping-places. The country soon grew rugged and thickly covered with growing timber, and it was only now and then we came to grass flats in the river valleys that afforded feed for the ponies. Much of the country has been burnt over since, as you have seen, but then it was covered almost everywhere with green timber, mostly spruce, fir, and jack-pine, with poplar and small birch on some of the ridges.

"One day as we reached the top of a hill near the Wolf Creek my father pointed to the westward and cried: 'Behold!'

"And there a hundred miles beyond rose the summits of the snow-capped mountains, stretching four hundred miles to north and south. I had seen them before, yet my heart swelled as it always does when I see them after an absence. Far to the southwest towered a mountain that looked like the roof of a great house. My uncle pointed it out to me.

"The sheep lick is there," said he. "It is there we are going."

"Even on the flats the feed was none too good. The summer was a dry one, and the grass was short. Besides, when we reached Big Flat, we found that another party had been there before us. Ten circles of tepee poles stood beside the river, and some bushes bent over showed where a sweat-house had stood, while the grass was cropped close by many ponies. My father and uncle dismounted and examined the signs with care. Soon my father held up a pair of worn out moccasins that he had found.

"Blackfoot," he grunted.

"At that dreadful word Marie and I and the rest of us children old enough to understand felt our throats grow tight, and we looked at each other with scared eyes. All our lives we had listened to endless tales of wars between the Crees and the Blackfeet; of how the young men of each would steal the horses of the other, at the same time taking what scalps they could. Some of our own ponies had been obtained by Father and Uncle on such a foray, and I myself had witnessed a furious battle between two parties who had met near the Hudson's Bay post at Edmonton. Two years before, smallpox, that scourge of the wigwam, had swept away many of the warriors of both tribes, and as a result peace had been made, but no one could tell when the old hatred might flame out afresh. Certainly we had no desire to meet so large a band and let them see our ponies.

"How long gone?" asked my mother, looking at us children, for a Cree mother loves her little ones.

"Two, three days," said my father.

"Shall we turn back?"

"Father and Uncle Mistawassis consulted with each other. At first they seemed doubtful, but at last Father said:

"If the Blackfeet go up the east fork of the Embarrass, we will take the west fork and cross the McLeod divide. If they take the west fork, we will follow the east and cross to the Pembina."

"They will follow the east fork," said my uncle, confidently. "It is the better trail, and they go to Kootenai Plain. They fear the evil spirits that dwell among the high mountains."

"So we moved forward cautiously, my father riding far ahead in order that we might not blunder among our enemies. Sure enough, when we reached the forks, it was as my uncle had said. All the pony tracks followed the left-hand trail leading down into the water and across the main river to the east bank of the east fork. We children looked at each other with smiling faces, and

for the first time in two days felt a great load lifted from our minds. As it happened, we never saw the Blackfeet; but as you will hear, they were to be the cause of great trouble to us.

"We followed up the west branch for more than a day's journey, and one morning struck across the divide toward the McLeod River. The way led through thick woods, and the trail was but a faint trace. The weather was clear, with a wind from the southeast which grew stronger as the sun rose high. Toward noon my father, who was ahead, reined in his pony and sniffed the air.

"Fire burning," said he. "I smell smoke."

"On hearing his words we children felt afraid, and Marie whispered to me, 'Is it that we are near the camp of the Blackfeet?'"

"No, it cannot be," I replied. At heart I felt as frightened as she, but I was a boy and must seem to be brave.

"I will go see what the fire can be," said my uncle.

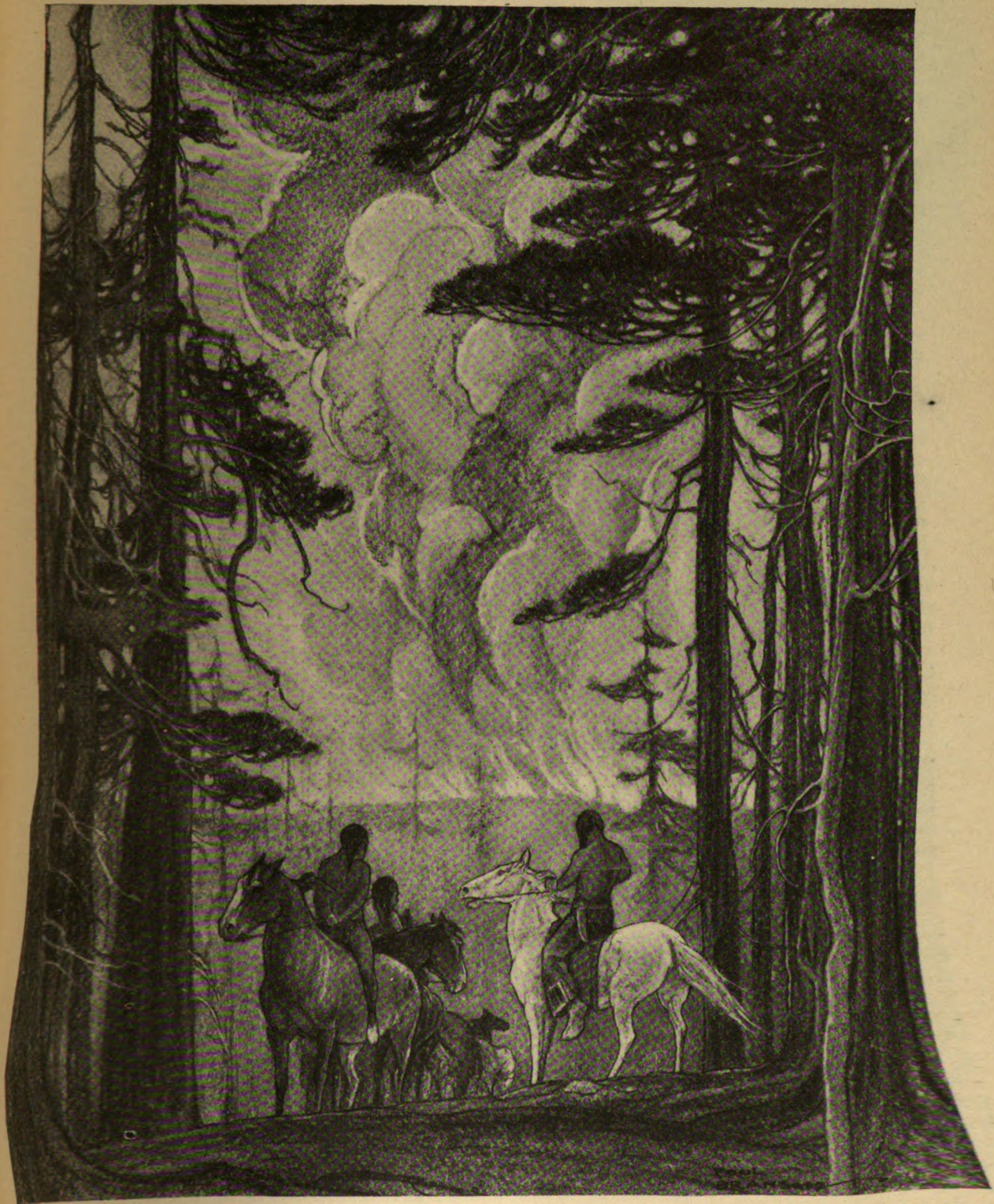
"He took his rifle, and handing his pony's rein to Father, began to climb to the top of the great hill along whose slope the trail led. We children, although we had been laughing and talking and playing all sorts of pranks a few minutes before, became as silent as a bull moose who scents an enemy. I looked all round us, half expecting to see Blackfeet come charging out of some thicket. But the only enemies we saw were flies and mosquitos, which swarmed about and troubled us much. Yet I noticed that the horses and dogs seemed uneasy and sniffed the air, in which the odor of smoke was now quite perceptible. By and by Uncle Mistawassis came running down the hill as fast as his great fatness would permit, but look as I would I saw no Blackfeet after him.

"What is it?" asked my mother.

"A fire, a great fire!" cried my uncle, when he had got his breath. "It is coming this way."

"My father looked much disturbed. 'We must flee!' he cried. 'We must travel fast! The valley of the McLeod is our only safety. The trail is long. We must make the ponies trot.'"

"My uncle rode ahead to lead the way, while my mother, father, and I hurried forward the loose horses. It was not so easy, for the trail wound round among hills and muskegs and was choked in places with fallen trees, while some of the ponies were lazy and stubborn. Now and then one would plunge into a thicket, and we would have to chase him back into the trail. We worked hard, for we knew that we must get out of the track of the fire or reach a large enough body of water to afford us protection. Out in the open this would have been easy, but there in the tangled bush it was difficult.



"AT A GLANCE WE SAW THAT THE FIRE WAS GAINING RAPIDLY UPON US." (SEE NEXT PAGE.)

"We had not gone far when the smoke began to be thicker, and I saw my father and uncle look around as if in fear.

"The fire comes fast," said my father. "The way is long."

"We crossed a deep valley, and when we mounted the slope beyond, we could see the smoke pouring above the crest of the hill behind us. The wind grew stronger every minute. Even the ponies now seemed to understand their peril and plunged ahead without trying to straggle. The hill ahead was higher than the one we had left, and when we reached its top, we could see the fire itself as it leaped from tree to tree. It looked miles wide, and, strangely enough, the two ends seemed in advance of the center. My uncle pointed this out to my father.

"Chance could not build such a fire," he declared.

"It is very wide to have been burning no longer," my father admitted. "But we must waste no time in talk, or we shall be caught like a white-fish in a net."

"We crossed another valley and ascended another hill, then looked back again. At a glance we saw that the fire was gaining rapidly upon us.

"We cannot reach the river!" said my father, anxiously. "See, the red demon leaps along our trail like wolves after a crippled caribou! Brother, what can we do?"

"It is true that we cannot reach the river," Uncle Mistawassis agreed. "I have been thinking. In the valley ahead is a little creek. In the year that our father went out to strike the Black-feet and never came back I found a beaver-dam there with two lodges. I trapped thirteen beaver; but you know, brother, that we count eight to the lodge. Perchance those left have multiplied and that the dam and lodges are still there. The pond was small, but it might serve for shelter."

"Man must accept what the Manitou offers," said my father. "Let us make haste and see!"

"My uncle turned downhill off the trail, and we followed. Trees and brush made the going hard and slow. The smoke was growing thick by now. The fire was not far behind.

"What if the dam is gone?" Marie asked in a low voice, as we neared the foot of the slope.

"Then we must die," I answered, striving to speak bravely.

"At last we came out upon the stream, which proved to be rather a brook than a creek. There had been no rains for a long time, and the water was low. We looked both up-stream and down, but could see no dam.

"It was somewhere hereabout," said my uncle, doubtfully.

"I think I hear water falling," said my mother, who happened to be farther up-stream than the rest of us.

"She turned her horse in that direction, and we all followed. Soon she reached a bend in the creek, and after a look beyond uttered a joyous cry:

"It is here! Come hither!"

"We were soon beside the dam of sticks and mud, through tiny holes in which the water trickled.

"The pond is small," my father cried, after a glance.

"He spoke the truth. The water was not above a hundred and fifty feet wide in the widest place, and was surrounded by tall trees.

"When the fire demon sweeps down through the forest, he will leap out upon us and eat us," my father continued.

"The lodges," my uncle cried, pointing to two great round heaps of sticks and earth that rose out of the center of the pond. "We must hide from the demon in the lodges!"

"But the ponies?" my father objected.

"My uncle shrugged his shoulders. 'Better so than that we all should burn,' he said. 'Some may be saved.'

"By this time the flames were topping the crest of the long hill behind us. The sound frightened us greatly. The fire would catch in the lower part of a spruce or fir and go flaring up through the dry moss and dead branches next the trunk as if through a funnel and with a roar almost like the report of a gun.

"We must work fast!" my father cried.

"Uncle forced his pony to enter the pond and rode out toward the lodge. The rest of us followed. The water most of the way was shallow, but near the center it deepened, and the ponies had to swim. We were soon at the lodges, and my father and uncle sprang upon the biggest.

"Both lodges were big, one of them as big as any I have ever seen. They must have been very old, for new ones are usually small both inside and out, and grow as they are repaired. After the winter cuttings are peeled of their bark, they are carried out of the lodge, and, when spring comes, some of them are put upon the roof to make good the waste due to settling and decay. The inside walls rot and fall in, and the waste is carried out, thereby increasing the size of the interior chamber. Thus, by external addition and internal enlargement, a lodge and its chamber grow until they reach considerable size.

"The water about the lodge was clear, and we could see the two entrances which one finds to every lodge and which trappers call the 'wood



"SHE FACED US DEFIANTLY, SNARLING AND SHOWING HER GREAT TEETH." (SEE PAGE 695.)

entrance' and the 'beaver entrance.' Both were fully five feet below water, for it is necessary that they should be beyond the reach of frost so that at all seasons the beavers may have an outlet and inlet from their home.

"Father and Uncle took hatchets from one of the packs and began to cut and dig at the roof of the lodge. It was hard work, for the branches formed a close network two or three feet thick. But at last the men broke through into the chamber. As they did so little Marie pointed into the water and cried:

"See the beavers!"

"Sure enough, out of the entrances half a dozen dark forms went swimming fast.

"They go to their burrows in the banks," said my father. "Claude, you must enter first and throw out the sticks and dirt which have fallen in."

"I had already got upon the lodge, and now I hastily crept through the hole. It seemed very dark inside at first, but I could soon see about me, and discovered to my great joy that the chamber was large and roomy, being at least seven feet across and perhaps three feet high. The walls and floor were hard and smooth, and round the sides lay bunches of clean dry grass which the beavers had used for their beds. Hurriedly I threw out some of the sticks and dirt that had fallen through the hole. Looking out a moment, I saw the fire advancing down the hillside in a great wall of flame. I caught a glimpse of a frightened moose splashing into the pond.

"Enter! enter!" I cried. "But, oh, my father, I fear there is not room for all!"

"It is well," he said quietly. And he and my uncle and mother began to hand in the other children. Last my mother entered, and with her she brought the puppies, for they were small and would fit into the chinks.

"Now we shall cover the hole with a wet blanket," said my father.

"He snatched one from off a pony, dipped it into the water, and spread it over the hole, leaving us in darkness.

"Farewell, my father and uncle!" I called to them, a catch in my throat, and Mother and Marie also said good-by.

"Fear not for us," said my father. "We shall find a way to save our lives. Lie close."

"In spite of his cheerful speech, I felt sad, for I knew there was no time for them to break into the other lodge. Even as I took my last look out I had seen the fire almost on the verge of the pond. In a few moments the flames would come leaping out over the water, withering and burning everything in reach.

"It was cramped quarters in that little hole in the darkness, but we heeded not our discomfort. All our thoughts were of the fiery tornado outside. With a great roar the flames at last flashed out over our refuge. The whole sky seemed a mass of fire. At first it had been cold and damp in our refuge, but now it grew stifling hot. The blanket gave forth clouds of hot steam, and I feared that it would catch fire. The air became so close we were almost choking, yet we did not dare raise the blanket to admit a fresh supply. For a long time, how long I know not, we cowered there, listening to the roaring of the fire, and praying for ourselves and for those outside. The first charge was the fiercest, yet long the flames crackled and leaped overhead. But at last the awful sounds died down somewhat, and I raised the blanket and peeped out. The worst was past, but the air was hot, and so full of smoke and falling ashes that I could not see a pony's length from me. Up the hillside beyond swept the fire which had sought our lives in vain.

"Father! Uncle!" I cried. "Where are you?"

"There was no answer, and again I shrieked in agony of fear for them. Then out in the smoke rose from the water two shapeless forms, and my father's voice rang out:

"Little warrior, is it well with thee and the others?"

"With all of us!" I cried, my heart leaping for joy.

"Praised be the Manitou and the God of the white man!" he made answer. "I called to both of them."

"The men waded nearer, and I saw that the hands of both were closely wrapped in wet blankets, but when they were up close, I noticed that their eyebrows were singed and their faces red and blistered. As they afterward explained, they had taken refuge behind a half-sunken log, and by diving from time to time and breathing only through the blankets had managed to preserve their lives. I clambered out upon the lodge, and soon the others joined me. There we sat, a reunited family, far from comfortable, but safe.

"Gradually the smoke lifted, disclosing a sad sight. Half of the horses, unable to endure the heat, had endeavored to flee, but in vain. The others had sensibly remained in deep water, and, though singed and burned, were yet alive.

"My father surveyed the dead and living beasts for a time in silence. Finally he spoke: 'We have lost much. Yet our lives are left us. Let us rejoice.'

"As the fire died down and the smoke lifted we saw that other creatures besides ourselves had sought refuge in the pond. The moose which I

had already seen had been joined by a cow and calf. All were alive, but the bull's horns, which were still in velvet, were sadly scorched and shriveled. Near the dam a dozen elk and three caribou stood in water up to their necks. Closer at hand, the roof of the other beaver-house held up a grizzly bear and two cubs, a lynx, a porcupine, and over a dozen rabbits. So long as the fire continued, none of the animals paid much heed to each other, but when the heat had diminished, the moose, elk, and caribou left the water and vanished among the charred and blackened trees. On the beaver lodge the lynx felt a return of his natural instincts, and, seizing a rabbit, swam to shore with it. This seemed to rouse the bear. She faced us defiantly, snarling and show-

ing her great teeth, but soon plunged off on the other side, followed by the cubs. The last we saw of them they were making their way slowly over the heated ground toward the mountains to the westward.

"Long afterward we learned that the fire had been kindled purposely by the Blackfeet whose trail we had seen, their hope being to injure some of their foes, the Crees. In order to make the probability greater, they had started the fire in a vast semicircle, which accounted for our being so nearly surprised by it. But vengeance fell upon the evil-doers, for the wind changed unexpectedly several hours later in the day, and most of the band met the death they had meant for their enemies."



"CONFOUND IT! AND THAT 'S MY LUCKY FOOT, TOO!"



THE STUDY AT QUARRY FARM WHERE "TOM SAWYER" WAS WRITTEN. (SEE PAGE 701.)

THE BOYS' LIFE OF MARK TWAIN

BY ALBERT BIGELOW PAINE

Author of "Mark Twain, a Biography," etc.

CHAPTER XXVI

"ROUGHING IT" IS WRITTEN

MARK TWAIN remained for less than two years in Buffalo—a period of much affliction.

In the beginning, prospects could hardly have been brighter. His beautiful home seemed perfect; at the office he found work to his hand, and enjoyed it. His co-editor, J. W. Larned, who sat across the table from him, used to tell later how Mark enjoyed his work as he went along,—the humor of it,—frequently laughing as some new absurdity came into his mind. He was not very regular in his arrival, but he worked long hours and turned in a vast amount of "copy": skits, sketches, editorials, and comments of a varied sort. Not all of it was humorous; he would stop work on an amusing sketch at any time to attack some abuse or denounce an injustice, and when he did, it was in scorching words that made offenders pause.

Once, when two practical jokers had sent in a marriage-notice of persons not even contemplating matrimony, he wrote: "This deceit has been practised maliciously by a couple of men whose

small souls will escape through their pores some day if they do not varnish their hides."

In May he considerably increased his income by undertaking a department called "Memoranda" for the new "Galaxy Magazine." The outlook was now so promising that to his lecture agent, James Redpath, he wrote:

Dear Red: I 'm not going to lecture any more forever. I 've got things ciphered down to a fraction now. I know just about what it will cost to live, and I can make the money without lecturing. Therefore, old man, count me out.

And in a second letter:

I guess I 'm out of the field permanently. Have got a lovely wife, a lovely house bewitchingly furnished, a lovely carriage, and a coachman whose style and dignity are simply awe-inspiring, nothing less; and I 'm making more money than necessary, by considerable, and therefore why crucify myself nightly on the platform? The subscriber will have to be excused for the present season, at least.

The little household on Delaware Avenue was indeed a happy place during those early months. Neither Clemens nor his wife in those days cared

much for society, preferring the comfort of their own home. Once, when a new family moved into a house across the way, they postponed calling until they felt rather ashamed. Clemens himself called first. One Sunday morning he noticed smoke pouring from an upper window of their neighbor's house. The occupants, seated on the veranda, evidently did not suspect their danger. Clemens stepped across to the gate and, bowing politely, said:

"My name is Clemens; we ought to have called on you before, and I beg your pardon for intruding now in this informal way, but your house is on fire."

It was at the moment when life seemed at its best that shadows gathered. Jervis Langdon had never accepted his son-in-law's playful invitation to "bring his bag and stay over night," and now the time for it was passed. In the spring his health gave way. Mrs. Clemens, who adored him, went to Elmira to be at his bedside. Three months of lingering illness brought the end. His death was a great blow to Mrs. Clemens, and the strain of watching had been very hard. Her own health, never robust, became poor. A girlhood friend who came to cheer her with a visit was taken down with typhoid fever. Another long period of anxiety and nursing ended with the young woman's death in the Clemens home.

To Mark Twain and his wife it seemed that their bright days were over. The arrival of little Langdon Clemens, in November, brought happiness, but his delicate hold on life was so uncertain that the burden of anxiety grew.

Amid so many distractions Clemens found his work hard. His "Memoranda" department in the "Galaxy" must be filled, and be bright and readable. His work at the office could not be neglected. Then, too, he had made a contract with Bliss for another book, "Roughing It," and he was trying to get started on that.

He began to chafe under the relentless demands of the magazine and newspaper. Finally, he could stand it no longer. He sold his interest in the "Express," at a loss, and gave up the "Memoranda." In the closing number (April, 1871) he said:

For the last eight months, with hardly an interval, I have had for my fellows and comrades, night and day, doctors and watchers of the sick! During these eight months death has taken two members of my home circle and malignantly threatened two others. All this I have experienced, yet all the time have been under contract to furnish humorous matter, once a month, for this magazine. . . . To be a pirate on a low salary and with no share of the profits in the business used to be my idea of an uncomfortable occupation, but I have other views now. To be a monthly humorist in a cheerless time is drearier.

The Clemens family now went to Elmira, to Quarry Farm, a beautiful hilltop place overlooking the river and the town—the home of Mrs. Clemens's sister, Mrs. Theodore Crane. They did not expect to return to Buffalo, and the house there was offered for sale. For them the sunlight had gone out of it.

Matters went better at Quarry Farm. The invalids gained strength; work on the book progressed. The Clemenses that year fell in love with the place that was to mean so much to them in the many summers to come.

Mark Twain was not altogether satisfied, however, with his writing. He was afraid it was not up to his literary standard. His spirits were at low ebb when his old first editor, Joe Goodman, came east and stopped off at Elmira. Clemens hurried him out to the farm, and, eagerly putting the chapters of "Roughing It" into his hands, asked him to read them. Goodman seated himself comfortably by a window, while the author went over to a table and pretended to write, but was really watching Goodman, who read page after page solemnly and with great deliberation. Presently Mark Twain could stand it no longer. He threw down his pen, exclaiming:

"I knew it! I knew it! I've been writing nothing but rot. You have sat there all this time reading without a smile—but I am not wholly to blame. I have been trying to write a funny book with dead people and sickness everywhere. Oh, Joe, I wish I could die myself!"

"Mark," said Goodman, "I was reading critically, not for amusement, and, so far as I have read and can judge, this is one of the best things you have ever written. I have found it perfectly absorbing. You are doing a *great book*!"

That was enough. Clemens knew that Goodman never spoke idly of such matters. The author of "Roughing It" was a changed man—full of enthusiasm, eager to go on. He offered to pay Goodman a salary to stay and furnish inspiration. Goodman declined the salary, but remained for several weeks, and during long walks which the two friends took over the hills gave advice and recalled good material, and was a great help and comfort. In May, Clemens wrote to Bliss that he had twelve hundred manuscript pages of the new book written and was turning out from thirty to sixty-five per day. He was in high spirits; the family health had improved; once more prospects were bright. He even allowed Redpath to persuade him to lecture again during the coming season. Selling his share of the "Express" at a loss had left Mark Twain considerably in debt, and lecture profits would furnish the quickest means of payment.

When the summer ended, the Clemens family took up their residence in Hartford, Connecticut, in the fine old Hooker house, on Forest Street. Hartford held many attractions for Mark Twain. His publishers were located there; also it was the home of a distinguished group of writers and of the Rev. "Joe" Twichell. Neither Clemens nor his wife had felt that they could return to Buffalo. The home there was sold; they did not see it again.

His book finished, Mark Twain lectured pretty steadily that winter, often in the neighborhood of Boston, which was lecture headquarters. Mark Twain enjoyed Boston. In Redpath's office one could often meet and "swap stories" with Josh Billings (Henry W. Shaw) and Petroleum V. Nasby (David R. Locke), well-known humorists of that day, while in the strictly literary circle there were William Dean Howells, Thomas Bailey Aldrich, Bret Harte, who by this time had become famous and journeyed eastward, and others of their sort. They were all young and eager and merry, then, and they gathered at luncheons in snug corners and talked gaily far into the dimness of winter afternoons. Harte had been immediately accorded a high place in the Boston group. Mark Twain as a strictly literary man was still regarded rather doubtfully by members of the older set,—the Brahmins, as they were called,—but the young men already hailed him joyfully, reveling in the fine fearless humor of his writing, his wonderful talk, his boundless humanity.

CHAPTER XXVII

MARK TWAIN IN ENGLAND

MARK TWAIN closed his lecture season in February (1872), and during the same month his new book, "Roughing It," came from the press. He disliked the lecture platform, and he felt that he could now abandon it. He had made up his loss in Buffalo and something besides. Furthermore, the advance sales on his book had been large.

"Roughing It," in fact, proved a very successful book. Like "The Innocents Abroad," it was the first of its kind, fresh in its humor and description, true in its picture of the frontier life he had known. In three months forty thousand copies had been sold, and now, after more than forty years, it is still a popular book. The life it describes is all gone; the scenes are changed. It is a record of a vanished time, a delightful history—as delightful to-day as ever.

1872 was an eventful year for Mark Twain. In March his second child, a little girl whom they named Susy, was born, and three months later the little boy Langdon died. He had never been

really strong, and a heavy cold and diphtheria brought the end.

Clemens did not work that summer. He took his little family to Saybrook, Connecticut, for the sea air, and near the end of August, when Mrs. Clemens had regained strength and courage, he sailed for England to gather material for a book on English life and customs. He felt very friendly toward the English, who had been highly appreciative of his writings, and he wished their better acquaintance. He gave out no word of the book idea, and it seems unlikely that any one in England ever suspected it. He was there three months, and beyond some note-book memoranda made during the early weeks of his stay, he wrote not a line. He was too delighted with everything to write a book—a book of his kind. In letters home he declared the country to be as beautiful as fairyland. By all classes attentions were showered upon him—honors such as he had never before received, even in America. W. D. Howells writes: ¹

In England, rank, fashion, and culture rejoiced in him. Lord mayors, lord chief justices, and magnates of many kinds were his hosts; he was desired in country houses, and his bold genius captivated the favor of periodicals that spurned the rest of our Nation.

He could not make a book—a humorous book—out of these people and their country; he was too fond of them.

England fairly reveled in Mark Twain. At one of the great banquets a roll of the distinguished guests was called and the names properly applauded. Mark Twain, busily engaged in low conversation with his neighbor, applauded without listening, vigorously or mildly as the others led. Finally a name was followed by a great burst of long and vehement clapping. This must be some very great person indeed, and Mark Twain, not to be outdone in his approval, stoutly kept his hands going until all the others had finished.

"Whose name was that we were just applauding?" he asked of his neighbor.

"Mark Twain's!"

But it was no matter—they took it all as one of his jokes. He was a wonder and a delight to them. Whatever he did or said was to them supremely amusing. When on one occasion a speaker humorously referred to his American habit of carrying a cotton umbrella, his reply that he did so because it was the only kind of an umbrella that an Englishman would n't steal was repeated all over England next day as one of the finest examples of wit since the days of Swift.

¹ "My Mark Twain," by William Dean Howells.

He returned to America at the end of November, promising to come back and lecture to them the following year.

BUT if Mark Twain could find nothing to write of in England, he found no lack of material in

Judge Hawkins and his wife were Mark Twain's father and mother; *Washington Hawkins*, his brother Orion. Their doings, with those of James Lampton as *Colonel Sellers*, were of course elaborated, but the story of the Tennessee land, as told in that book, is very good history in-



"MARK TWAIN KEPT HIS HANDS GOING UNTIL ALL THE OTHERS HAD FINISHED."

America. That winter in Hartford, with Charles Dudley Warner, he wrote "The Gilded Age." The Warners were neighbors, and the families visited back and forth. One night at dinner, when the two husbands were criticising the novels their wives were reading, the wives suggested that their author husbands write a better one. The challenge was accepted. On the spur of the moment Warner and Clemens agreed to write a book together, and began it immediately.

Clemens had an idea already in mind. It was to build a romance around that lovable dreamer, his mother's cousin James Lampton, whom the reader will recall from an earlier chapter. Without delay he set to work, and soon completed the first 399 pages of the new story. Warner came over then, and, after listening to its reading, went home and took up the story. In two months the novel was complete—Warner doing most of the romance, Mark Twain the character parts. Warner's portion was probably pure fiction, but Mark Twain's chapters were full of history.

deed. *Laura Hawkins*, however, was real only in the fact that she bore the name of Samuel Clemens's old playmate. "The Gilded Age," published later in the year, was well received and sold largely. The character of *Colonel Sellers* at once took a place among the great fiction characters of the world, and is probably one of the best known of American creations. His maxim, "There 's millions in it," became a byword.

The Clemenses decided to build in Hartford. They bought a plot of land on Farmington Avenue, in the literary neighborhood, and engaged an architect and builder. By spring the new house was well under way and matters progressing so favorably that the owners decided to take a holiday while the work was going on. Clemens had been eager to show England to his wife; so taking little Susy, now a year old, they sailed in May to be gone half a year.

They remained for a time in London—a period of honors and entertainment. If Mark Twain had been a lion on his first visit, he was hardly less

than royalty now. His rooms at the Langham Hotel were like a court. The nation's most distinguished men, among them Robert Browning, Sir John Millais, Lord Houghton, and Sir Charles Dilke, came to pay their respects. Authors were calling constantly. Charles Reade and Wilkie Collins could not get enough of Mark Twain. Reade proposed to join with him in writing a novel, as Warner had done. Lewis Carroll did not call, being too timid, but they met the author of "Alice in Wonderland" one night at a dinner—"the shyest full-grown man, except Uncle Remus, I ever saw," Mark Twain once declared.

Little Susy and her father thrived on London life, but it wore on Mrs. Clemens. At the end of July they went quietly to Edinburgh, and settled at Veitch's Hotel, on George Street. The strain and excitement had been too much for Mrs. Clemens, and her health became poor. Unacquainted in Edinburgh, Clemens only remembered that Dr. John Brown, author of "Rab and His Friends," lived there. Learning the address, he walked around to 23 Rutland Street and made himself known. Dr. Brown came forthwith, and Mrs. Clemens seemed better from the moment of his arrival.

The acquaintance did not end there. For a month the author of "Rab" and the little Clemens family were together daily. Often they went with him to make his round of visits. He was always leaning out of the carriage to look at dogs. It was told of him that once, when he had suddenly put his head from a carriage window, he dropped back with a disappointed look.

"Who was it?" asked his companion; "some one you know?"

"No, a dog I *don't* know."

Dr. John was beloved by everybody in Scotland, and his story of *Rab* had won him a world-wide following. Children adored him. Little Susy and he were playmates, and he named her *Megalopis*, a Greek term suggested by her great dark eyes.

Mark Twain kept his promise to lecture to a London audience. On the 13th of October in the Queen's Concert Rooms, Hanover Square, he gave "Our Fellow-savages of the Sandwich Islands." The house was packed. Clemens was not introduced. He appeared on the platform in evening dress, assuming the character of a manager announcing a disappointment. Mr. Clemens, he said, had fully expected to be present. He paused, and loud murmurs arose from the audience. He lifted his hand and they subsided. Then he added, "I am happy to say that Mark Twain is present and will now give his lecture." The audience roared its approval.

He continued his lectures at Hanover Square through the week, and at no time in his own country had he won such a complete triumph. He was the talk of the streets. The papers were full of him. The London "Times" declared his lectures had only whetted the public appetite for more. His manager George Dolby, formerly manager for Charles Dickens, urged him to remain and continue the course through the winter. Clemens finally agreed that he would take his family home to America and come back himself within the month. This plan he carried out. Returning to London, he lectured steadily for two months in the big Hanover Square rooms, this time giving his "Roughing It" address, and it was only toward the end that his audiences showed any sign of diminishing. There is probably no other such lecture triumph on record.

Mark Twain was at the pinnacle of his first glory: thirty-six, in full health, prosperous, sought by the world's greatest, welcomed and acclaimed in the highest places. *Tom Sawyer's* dreams of greatness had been all too modest. In its most dazzling moments his imagination had never led him so far.

CHAPTER XXVIII

BEGINNING "TOM SAWYER"

It was at the end of January, 1874, when Mark Twain returned to America. His reception abroad had increased his prestige at home. Howells and Aldrich came over from Boston to tell him what a great man he had become, to renew those Boston days of three years before, to talk and talk of all the things between the earth and sky. And Twichell came in, of course, and Warner, and no one took account of time, or hurried, or worried about anything at all.

"We had two such days as the aging sun no longer shines on in his round," wrote Howells, long after, and he tells how he and Aldrich were so carried away with Clemens's success in subscription publication that, as they journeyed back to Boston, they planned a book to sell in that way. It was to be called "Twelve Memorable Murders," and they had made two or three fortunes from it by the time they reached their destination.

"But the project ended there. We never killed a single soul," Howells once confessed to the writer of this memoir.

At Quarry Farm that summer Mark Twain began the writing of "The Adventures of Tom Sawyer." He had been planning for some time to set down the story of those far-off days along the river-front at Hannibal with John Briggs, Tom

Blankenship, and the rest of that graceless band, and now in the cool luxury of a little study which Mrs. Crane had built for him on the hillside he set himself to spin the fabric of his youth. The study was a delightful place to work. It was octagonal in shape with windows on all sides, something like a pilot-house. From any direction the breeze could come, and there were fine views. To Twichell he wrote:

It is a cozy nest, and just room in it for a sofa, table, and three or four chairs, and, when the storm sweeps down the remote valley and the lightning flashes behind the hills beyond, and the rain beats upon the roof over my head, imagine the luxury of it.

He worked steadily there that summer. He would begin mornings, soon after breakfast, keeping at it until nearly dinner-time, say until five or after, for it was not his habit to eat the midday meal. Other members of the family did not venture near the place; if he was wanted urgently, a horn was blown. His work finished, he would light a cigar, and stepping lightly down the stone flight that led to the house-level, he would find where the family had assembled and read to them his day's work. Certainly those were golden days, and the tale of *Tom* and *Huck* and *Joe Harper* progressed. To Dr. John Brown, in Scotland, he wrote:

I have been writing fifty pages of manuscript a day, on an average, for some time now . . . and consequently have been so wrapped up in it and dead to everything else that I have fallen mighty short in letter-writing.

But the inspiration of *Tom* and *Huck* gave out when the tale was half finished, or perhaps it gave way to a new interest. News came one day that a writer in San Francisco, without permission, had dramatized "The Gilded Age," and that it was being played by John T. Raymond, an actor of much power. Mark Twain had himself planned to dramatize the character of *Colonel Sellers*, and had taken out dramatic copyright. He promptly stopped the California production, then wrote the dramatist a friendly letter, and presently bought the play of him and set in to rewrite it. It proved a great success. Raymond played it for several years. *Colonel Sellers* on the stage became fully as popular as in the book, and very profitable indeed.

THE new home in Hartford was ready that autumn—the beautiful house finished or nearly finished, the handsome furnishings in place. It was a lovely spot. There were trees and grass—a green shady slope that fell away to a quiet stream. The house itself, quite different from most of the houses of

that day, had many wings and balconies, and toward the back a great veranda that looked down the shaded slope. The kitchen was not at the back. As Mark Twain was unlike any other man that ever lived, so his house was not like other houses. When asked why he built the kitchen toward the street he said:

"So the servants can see the circus go by without running into the front yard."



Photograph by Gurney.

MARK TWAIN IN 1870.

But this was probably his afterthought. The kitchen wing extended toward Farmington Avenue, but it was a harmonious detail of the general plan.

Many frequenters have tried to express the charm of Mark Twain's household. Few have succeeded, for it lay not in the house itself nor in its furnishings, beautiful as these things were, but in the personality of its occupants, the daily round of their lives, the atmosphere which they unconsciously created. From its wide entrance-hall and tiny jewel-like conservatory below to the billiard-room at the top of the house it seemed perfectly appointed, serenely ordered, and full of welcome. The home of one of the most unusual and unaccountable personalities in the world was filled with gentleness and peace. It was Mrs.

Clemens who was chiefly responsible. She was no longer the half-timid, inexperienced girl he had married. Association, study, and travel had brought her knowledge and confidence. When the great ones of the world came to visit America's most picturesque literary figure, she gave welcome to them and filled her place at his side with such sweet grace that those who came to pay their duties to him often returned to pay still greater devotion to his companion. William Dean Howells, so often a visitor there, once said to the writer:

"Words cannot express Mrs. Clemens—her



SUSY CLEMENS.

(Taken in Edinburgh in 1873.)

fineness, her delicate, wonderful tact"; and again, "She was not only a beautiful soul, but a woman of singular intellectual power."

There were always visitors in the Clemens home. Above the mantel in the library was written, "*The ornament of a house is the friends that frequent it,*" and the Clemens home never lacked of those ornaments, and they were of the world's best. No distinguished person came to America that did not pay a visit to Hartford and Mark Twain. Generally it was not merely a call, but a stay of days. The welcome was always genuine, the entertainment unstinted. George Warner, a close neighbor, once said:

"The Clemens house was the only one I have ever known where there was never any preoccupation in the evenings, and where visitors were always welcome. Clemens was the best kind of a host; his evenings after dinner were an unending flow of stories."

As for friends living near, they usually came and went at will, often without the ceremony of knocking or formal leave-taking. The two Warner families were among these, the home of

Charles Dudley Warner being only a step away. Dr. and Mrs. Harriet Beecher Stowe were also close neighbors, while the Twichell parsonage was not far off. They were all like one great family, of which Mark Twain's home was the central gathering-place.

CHAPTER XXIX

"OLD TIMES," "SKETCHES," AND "TOM SAWYER"

THE Rev. Joseph H. Twichell and Mark Twain used to take many long walks together, and once they decided to walk from Hartford to Boston, about one hundred miles. They decided to allow three days for the trip, and really started one morning, with some luncheon in a basket and a little bag of useful articles. It was a bright, brisk, November day and they succeeded in getting to Westford, a distance of twenty-eight miles, that evening. But they were lame and footsore; and next morning, when they had limped six miles or so farther, Clemens telegraphed to Redpath:

"We have made thirty-five miles in less than five days. This shows the thing can be done. Shall finish now by rail. Did you have any bets on us?"

He also telegraphed Howells that they were about to arrive in Boston; and they did, in fact, reach the Howells' home about nine o'clock and found excellent company—the Cambridge set—and a most welcome supper waiting. Clemens and Twichell were ravenous. Clemens demanded food immediately. Howells writes:

"I can see him now as he stood up in the midst of our friends, with his head thrown back, and in his hands a dish of these scalloped oysters without which no party in Cambridge was really a party, exulting in the tale of his adventure, which had abounded in the most original characters and amusing incidents at every mile of their progress.

The pedestrians returned to Hartford a day or two later—by train. It was during another, though less extended, tour which Twichell and Clemens made that autumn that the latter got his idea for a Mississippi book. Howells had been pleading for something for the January "Atlantic," of which he was now chief editor, but thus far Mark Twain's inspiration had failed. He wrote at last, "My head won't go"; but later in the same day he sent another hasty message:

"I take back the remark that I can't write for the January number, for Twichell and I have had a long walk in the woods, and I got to telling him about old Mississippi days of steamboating glory and grandeur as I saw them (during four years) from the pilot-house. He said, 'What a virgin subject to hurl into a magazine!'

I had n't thought of that before. Would you like a series of papers to run through three months, or six, or nine—or about four months, say?

Howells wrote at once, welcoming the idea. Clemens forthwith sent the first instalment of that marvelous series of river chapters, which rank to-day among the very best of his work. As pictures of the vanished Mississippi life they are so real, so convincing, so full of charm, that they can never grow old. As long as any one reads of the Mississippi they will look up those chapters of Mark Twain's piloting days. When the first number appeared, John Hay wrote:

"It is perfect; no more, no less. I don't see how you do it."

The "Old Times" chapters ran through seven numbers of the "Atlantic," and show Mark Twain at his very best. They form now the first twenty chapters of "Life on the Mississippi." The remainder of that book was added about seven years later.

Those were busy literary days for Mark Twain. Writing the river chapters carried him back, and hardly had he finished them when he took up the neglected story of *Tom and Huck* and finished that under full steam. He at first thought of publishing it in the "Atlantic," but decided against this plan. He sent Howells the manuscript to read, and received the fullest praise. Howells wrote:

"It is altogether the best boy's story I ever read. It will be an immense success."

Clemens, however, delayed publication. He had another volume in press, a collection of his sketches, among them "The Jumping Frog" and others of his California days. "The Jumping Frog" had been translated into French, and in this book Mark Twain published the French version and then a literal re-translation of his own, which is one of the most amusing features in the

volume. As an example: the stranger's remark, "I don't see no p'int about that frog that 's any better than any other frog," in the literal re-translation becomes, "I no saw not that that frog had nothing of better than each frog"; and Mark Twain throws in a parenthesis to say, "If that



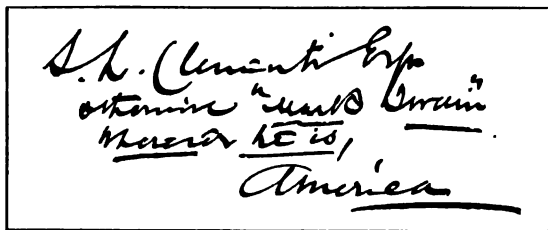
"MANY EVENINGS AT HOME HE GAVE TO SUSY AND CLARA." (SEE NEXT PAGE.)

is n't grammar gone to seed, then I count myself no judge."

"Sketches New and Old" went very well, but the book had no such sale as "The Adventures of Tom Sawyer," which appeared a year later (December, 1876). From the date of its issue it took its place as foremost of American stories of boy life, a place that it shares only with "Huck Finn"

to this day. Mark Twain's own boy life in the little drowsy town of Hannibal with John Briggs and Tom Blankenship, their adventures in and about the cave and river, made perfect material. The story is full of pure delight. The camp on the island is a picture of boy heaven. No boy that reads it but longs for the woods, and a camp-fire, and some bacon strips in the frying-pan. It is all so thrillingly told, and so vividly. We know certainly that it must all have happened. "The Adventures of Tom Sawyer" has taken a place side by side with "Treasure Island."

MARK TWAIN was now regarded by many as the foremost American author. Certainly he was the widest-known. As a national feature he rivaled Niagara Falls. There was no civilized spot on earth that his name had not reached. Letters



FACSIMILE OF AN ENVELOP THAT REACHED ITS DESTINATION.

merely addressed "Mark Twain" found their way to him. "Mark Twain, United States," was a common superscription. "Mark Twain, The World," also reached him without delay, while "Mark Twain, Somewhere," and "Mark Twain, Anywhere," in due time came to Hartford. Surely these were the farthest limits of fame.

Countless anecdotes went the rounds of the press. Among them was one which happened to be true:

Their near neighbor Mrs. Harriet Beecher Stowe was leaving for Florida one morning, and Clemens ran over early to say good-by. On his return Mrs. Clemens looked at him severely.

"Why, Youth," she said, "you have n't on any collar and tie." He said nothing, but went to his room and did up those items in a neat package which he sent over by a servant to Mrs. Stowe with the line:

"Herewith receive a call from the rest of me."

Mrs. Stowe returned a witty note in which she said he had discovered a new principle—that of making calls by instalments, and asked whether in extreme cases a man might not send his clothes and be himself excused.

Most of his work Mark Twain did at Quarry

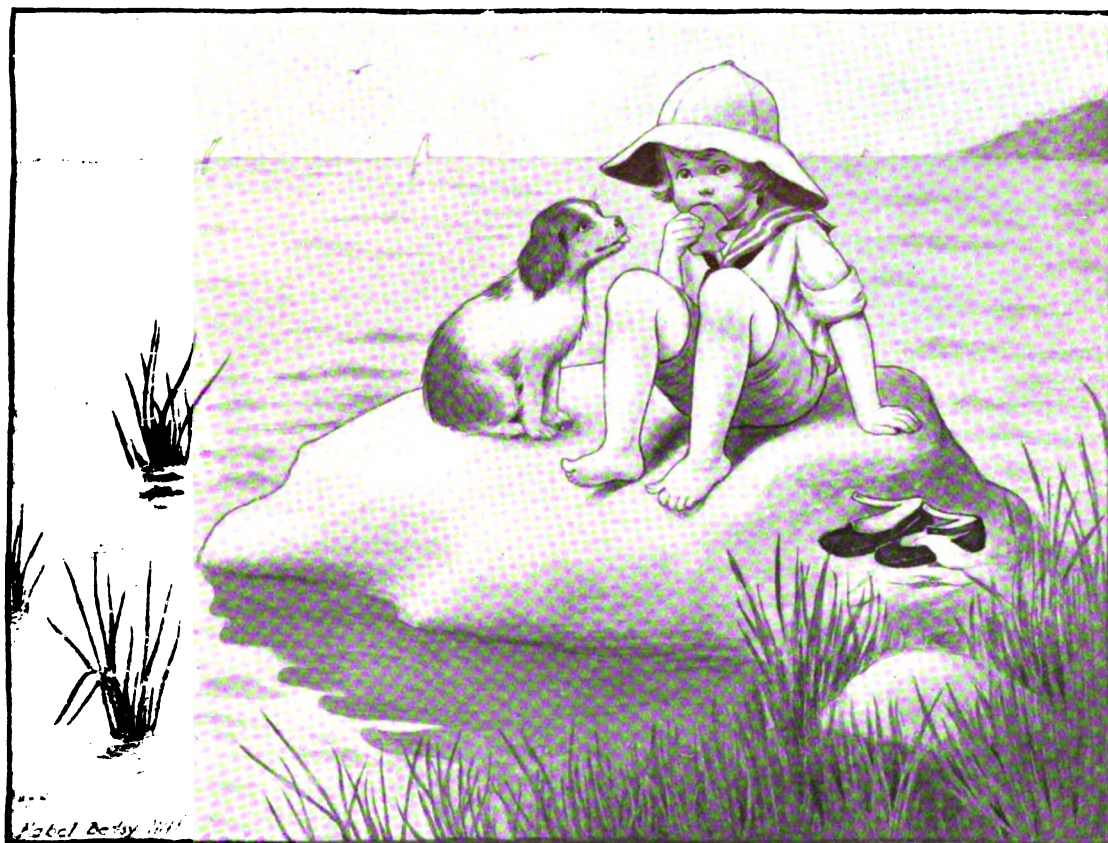
Farm. Each summer the family—there were two little girls now, Susy and Clara—went to that lovely place on the hilltop above Elmira, where there were plenty of green fields, and cows, and horses, and apple-trees, a spot as wonderful to the children as John Quarles's farm had been to their father so long ago. All the family loved Quarry Farm, and Mark Twain's work went more easily there. His winters were not suited to literary creation—there were too many social events; though once—it was the winter of '76—he wrote a play with Bret Harte, who came to Hartford and stayed at the Clemens home while the work was in progress. It was a Chinese play, "Ah Sin," and the two had a hilarious time writing it, though the result did not prove much of a success with the public. Mark Twain often tried plays,—one with Howells among others,—but the *Colonel Sellers* play was his only success.

Grand dinners, trips to Boston and New York, guests in his own home occupied much of Mark Twain's winter season. His leisure he gave to his children and to billiards. He had a passion for the game, and at any hour of the day or night was likely to be found in the room at the top of the house, knocking the balls about alone or with any visitor that he had enticed to that den. He mostly received his callers there, and impressed them into the game. If they could play, well and good. If not, so much the better—he could beat them extravagantly, and he took huge delight in such contests. Every Friday evening a party of billiard lovers, Hartford men, gathered and played, and told stories, and smoked until the room was blue. Clemens never tired of the game. He could play all night. He would stay until the last man dropped from sheer weariness, and then go on knocking the balls about alone.

But many evenings at home, early evenings, he gave to Susy and Clara. They had learned his gift as a romancer and demanded the most startling inventions. They would bring him a picture, requiring him to fit a story to it without a moment's delay. Once he was suddenly ordered by Clara to make a story out of a plumber and a "bawgunstictor," which on the whole was easier than some of their requirements. Along the bookshelves were ornaments and pictures. A picture of a girl whom they called Emeline was at one end, and at the other a cat. Every little while they compelled him to make a story beginning with the cat and ending with Emeline. Always a new story, and never the other way about. The literary path from the cat to Emeline was a perilous one, but in time he could have traveled it in his dreams.

(To be continued.)

FROM THE DIARY OF ROBINSON CRUSOE



I HAVE a little island
Out in the shining sea,
Where I and my Man Friday
Are happy as can be.

I tell you it 's exciting,
This being cast away,

And looking for provisions
And a cave where you can stay.

It 's jolly being shipwrecked
And not one bit a bore,
For when I 'm tired or hungry—
Then I just wade ashore.

Rebecca D. Moore.

A CHEERFUL LITTLE GIRL

BY AUGUSTA KORTRECHT

SAID a little miss:
"It is just like this—
When the winter winds are cold,
I read nice tales of summer vales,
Of barn-yard fowls and the milking pails,
And the sunshine bright as gold.

"But in July,
If it 's hot and dry,
And I must n't stir about,
I love to look at my Christmas book,
With snow on the earth in every nook,
While the children run and shout."

THE SAPPHIRE SIGNET

OR, THE LASS OF RICHMOND HILL

BY AUGUSTA HUIELL SEAMAN

Author of "The Boarded-up House"

CHAPTER XVII

IN WHICH SARAH CHANGES HER MIND

It was indeed Sarah! The sound of her latch-key in the basement door was unmistakable. What could have induced her to return when she had been away scarcely more than an hour, they could not imagine, unless it was her anxiety on Margaret's account. At any rate, there she was, and a panic of consternation seized them all. Even the wonderful signet was forgotten in the stress of the moment. Strangely enough, it was Margaret who first regained her poise and grasped the situation.

"Quick!" she whispered. "Corinne and Jess, get those things back in the trunk—any old way! Bess, you go out and call down to ask her what's the matter. Maybe she is n't coming up just yet!"

They got to work in frantic haste, and Bess went out in the hall to make her inquiries of Sarah.

"What's the trouble, Sarah? You're back very early!" they heard her ask. And an answering voice from the basement stairs responded:

"Sure 't is rare unhealthy weather fur this time of year! 'T was so war-m I nearly roasted in me heavy coat—and we not out of winter yet! I come back fur me lighter cape. 'T is hangin' in the attic!"

"We're lost!" muttered Mr. Cameron as Bess rushed in, despair written all over her face. "Can't any one think of something to keep her downstairs for five minutes?"

And this time it was Alexander who came to the rescue.

"Just watch your Uncle Dudley!" he whispered, as he ambled with apparent unconcern out of the room. "If you hear me call her down, give that trunk the boost to the attic as soon as you can, and put the key back in her shoe."

They heard him leisurely descending the stairs, and Sarah's massive tread approaching nearer and nearer. At one point there came sounds as of a slight scuffle, and muttered remarks of "Spalpeen!" and "I'll fix you yet, young man!" Then Alexander passed on, whistling derisively, and Sarah's heavy feet began the ascent of the sec-

ond-story flight. Up and up she came, and still nothing happened. Hope died out in the listening group, for they were sure now that, whatever Alexander might do, it would be too late to avert the catastrophe. Sarah had, indeed, just planted a broad foot on the top step when they heard Alexander's shrill voice calling from the basement:

"Oh, Sarah! Sarah! Come quick! There's something afire in the kitchen!"

"Saints save us!" they heard her exclaim, and she turned to descend with a speed of which they had never dreamed her capable.

"Do you think it's anything *serious*?" whispered Jess to Mr. Cameron. "Ought n't we go down, too?"

"No indeed!" he laughed. "I guess we can trust Alexander. Fortunately, the trunk is very light, so you girls can get it up-stairs while I listen in the hall to see if they need help below."

In five minutes the three girls had the trunk safely back in its place, and the key restored, and were back in Margaret's room, panting from exertion and breathless excitement. But it was at least a quarter of an hour before Alexander came up again, chuckling and smoke-blackened.

"Well, this is one time when we put it all over the lallypaloozer!" he exclaimed jubilantly. "I got that pail of glue I keep in the yard to paste kites with, and put it on the gas-stove as if I was going to heat it. Then I accidentally-on-purpose dropped a lighted match into that big tin thing where Sarah keeps the waste paper and scraps. It made a big blaze, but I knew it could n't hurt anything, 'cause it's tin all around it. But I raised a hullabaloo like you'd thought the Woolworth Building was going up in blue smoke! It fetched her down, all right, and I figure it'll keep her there a good spell! The gas-stove's all smoky, and she's cleaning it up and growling like a bear, so I beat it up here!"

Then at last, with their minds relieved, did they have the first opportunity to consider their wonderful "find," and they all crowded around Margaret, in whose little white palm it lay. The gold setting at the back was tarnished quite black, but the jewel itself was apparently unchanged. They gave an involuntary gasp as they examined it, for it was even more beautiful than they had

imagined. The flat sapphire itself was as large as a big Lima bean, flawless, and curiously engraved with the old-English letter "T," and a crest above it, looking like two eagles holding a sword. The surrounding diamonds were tiny, but finely cut and still brilliant.

"Is n't it almost unbelievable," half whispered Margaret, at last, "to think that right here in my hand I hold the very jewel that cost poor Alison so much pain and trouble! And, oh! to think,

is another matter. I believe the jewel would then be rightly counted the property of—the Bronsons of Charlton Street!"

The Bronson contingent there present gasped in chorus.

"But how shall we go about hunting up the descendants of the Trenhams?" questioned Corinne. "That 'll be a big piece of work, won't it?"

"It probably will, and perhaps a very compli-



"'I 'VE GOT NEWS FOR YOU, HONEY!' SAID CORINNE."

besides, that it never got back to Bermuda, after all, and probably she did n't either! It makes me feel just—sad—somehow!"

"But what are we going to do with it?" demanded Corinne.

Mr. Cameron had been examining the jewel with all the ardor of a genuine lover of antiques. He now spoke very quietly:

"There 's only one thing to do, and it 's a solemn duty imposed on us by the writer of that poor little journal you found. We must make every effort to discover whether the Trenhams in Bermuda have any descendants or relatives existing to-day. No matter how distant they may be, the signet must be returned to them, for it was Alison's wish. If we should find none, that

cated one, besides," agreed Mr. Cameron. "We had better start our investigations with the Bermuda records, and I 'll write down there to the authorities asking how I can get hold of data about the family history. The matter must be dealt with very carefully, because it is really no light affair. I am convinced, even in this hasty examination, that the signet is very rare and of very considerable value, not only because of the stone itself, but of its antiquity. It must not be lightly given away. Its ownership must be proved beyond a doubt. I expect to be extremely busy for the next three or four weeks, and may have little time to give to this matter. But after that, when business slackens, I can give this the attention it deserves. Meantime, I think perhaps

it had better be kept in my safe-deposit box at the bank, where it will be absolutely safe. We won't trust *this*, at least, to Sarah's tender mercies!"

Suddenly Corinne cried out in perplexity: "But this makes our mystery deeper than ever! Do you realize it, folks? What became of poor little Alison, after all? And why were her trunk and her jewel and half her journal found floating about in a wrecked vessel?"

"I tell you, she had to 'walk the plank!'" reiterated Alexander. "I said so before, and now I believe it! It 'd make a gorgeous old pirate yarn!"

"She did n't! She did n't!" wailed Margaret. "I won't believe such a thing!"

"Never mind what happened—just yet!" interrupted Mr. Cameron, soothingly. "The Antiquarian Club 's going to find out the truth some time—I 'm convinced of that!"

It was two weeks later, about the middle of March, when Corinne came in to see Margaret one afternoon with considerable suppressed excitement in her manner. Margaret was still confined to her bed, and, though scarcely so listless as she had seemed at first, she was undoubtedly weaker. Corinne's visits were now her mainstay of pleasure and interest, and she welcomed the girl with a glad little cry.

"I 've got news for you, Honey!" said Corinne, laying her usual offering of flowers and fresh fruit on the bed.

"What?" cried Margaret, eagerly.

"Well, you must n't be surprised, but Father has n't been a bit well again, lately. The weather 's awfully hard on him, and his business has rushed him, too, and he 's all run down. So in a couple of weeks he 's going to take a vacation and go down to Bermuda again. It did him a lot of good last time. He 'll stay at least a month, and longer if he feels like it."

"Is n't that nice!" cried Margaret, with great interest. "I 'm awfully sorry he does n't feel well, but I 'm glad he can go to such a lovely place and get better. You 'll miss him though, won't you, Corinne, because you seem to be with him such a lot,—more than most girls are with their fathers!"

"No," said Corinne slowly, "I won't miss him, because—I 'm going with him!"

Margaret stared at her a moment wide-eyed, and her chin quivered—just a mere trifle. But she braced up with a visible effort and exclaimed:

"Oh, Corinne! how lovely! You certainly are a lucky girl!" Then the chin began to quiver harder, and all at once poor little Margaret com-

pletely lost control of herself, and buried her head in the pillow, sobbing:

"Oh, I *am* glad! I really am glad for you, Corinne! Don't mind this! Only it just seemed as though I *could n't* live without you for so long!"

Corinne gathered the sobbing form in her arms and crooned to her: "You won't have to, dearie, for—you 're going along, too!"

Margaret sprang back from her embrace, pushed the tangled curls from her eyes, and gazed at Corinne as though her friend had suddenly gone crazy.

"What?" was the only word she could utter.

"Now, just you let me explain it all," began Corinne soothingly, settling down on the bed beside her. "And don't you get so excited, because it is n't good for you. I 'll tell you the whole story. It was like this. After Father found it was best to go to Bermuda, he made up his mind that Aunt Katharine and I might as well go, too, because he hates to go alone. And, of course, I was crazy to go, but just one thing kept me from being *entirely* delighted, and that was—you! I hated to leave you, because I love you, and also because you are not at all well just now. Father and I have both been very anxious about you. So we got to talking it over, and suddenly he said: 'Why not invite Margaret to come along with you as your guest! The trip might do her a great deal of good, and I know you two are growing as inseparable as a pair of Siamese twins!'

"Well, you can just warrant I was delighted, for I knew Father 'd never make such a suggestion unless *he* really wanted you, too! He said he would call on your mother at her place of business, and see if she would consent, and also on your doctor, to see if he thought the trip would be advisable. I begged him to make them keep it a secret, so that, if everything went well, I could surprise you with the news when it was all settled. I hated to have you disappointed in case the doctor thought it was n't wise, or your mother felt that she could n't consent to your going.

"Your mother was awfully surprised, of course, and for a while she almost refused, because she felt it to be too much for Father to do. But when she found that it was going to do you so much good, and how terribly I wanted you, she gave in. And you need n't worry about being taken care of and having everything done for you that Sarah does. I 'm going to do that! It 's to be my job, being your lady's maid, and won't I enjoy it! Aunt Katharine will help too, when necessary. She 's lovely and kind and gentle, and you 're going to like her a lot!

"Honey, we sail a week from next Wednesday, and I can hardly wait for the time to come!"

THERE was surprise and rejoicing in the Charlton Street house that night when Mrs. Bronson arrived and the great secret became public property. Mrs. Bronson admitted that she had known about it for several days, and was having a pretty outfit of traveling clothes made for Margaret. The twins were frankly delighted, for they had been themselves experiencing much secret anxiety on account of Margaret's precarious health, as indeed had all the household. Alexander gave an Indian war-whoop that was ear-splitting and performed the acrobatic feat of standing on his head in the middle of the parlor floor for three minutes unassisted! The extraordinary racket brought an indignant Sarah up from the kitchen to investigate.

But it was when Sarah heard the news that consternation fell upon the happy household. She placed both hands on her massive hips, threw back her head, squared her shoulders and announced:

"If Margie puts one fut aboard that rampagin' ship, I go out of this house, never to return!"

Now, when the autocratic Sarah made a statement of this nature, it was time for the family to tremble! Mrs. Bronson argued, pleaded, commanded—in vain. Sarah could no more be budged from her position than the Rock of Gibraltar. Urged to state her reasons, she would offer but two. And these were that, about forty years ago, she herself had come over from Ireland in a truly "rampagin'" ship, and never again would she trust herself or any one she held dear to the mercies of the ocean. Arguments that ship-building had made some progress and traveling was safer since those days had absolutely no effect on her—in fact, she refused to believe them!

Her second reason was that Margaret had been in her care ever since she was born, and no one else knew so well what to do for the delicate child. She was firmly convinced that it would be the death of her beloved charge to be removed from her oversight. At last the distracted Mrs. Bronson laid the matter aside for the night, the girls retired to bed in tears and indignation, and Alexander dared to shake his fist at the broad back of Sarah departing to the kitchen. Only Margaret remained in ignorance of the impending disaster, and fell asleep happy beyond words.

The next day Mrs. Bronson made the request that Mr. Cameron call that evening, for she felt that the situation must be explained to him. It would be a serious matter if Sarah kept her word—as she doubtless had every intention of

doing. It also was important, for the sake of Margaret's health, that she should get away and have this wonderful change.

Mrs. Bronson was a sorely troubled woman as she explained the circumstances to her visitor. Mr. Cameron sat in deep thought for a few moments. Then he said:

"Could you have your housekeeper come up here for a few minutes and allow me to see her alone?"

Mrs. Bronson declared that it was entirely possible, summoned Sarah, who arrived full of hostile intent, introduced her to the visitor, and went upstairs, leaving them together for a while. Margaret had by this time learned of the trouble, and was nervous and anxious and feverish. Corinne, who had come with her father, was sitting with her, trying to assure her that she need not worry. But the assurance rang hollow in her own ears. She, too, knew Sarah!

Presently they were surprised to hear her heavy footsteps coming upstairs. They passed the door and entered Mrs. Bronson's room. Then, in a moment, they returned, halted, and a singularly changed Sarah stood in the doorway.

"Yer father 's goin' now, Miss Corinne, and he wants ye," she announced in a strangely meek, quiet voice. "I 'll be back in two minutes to fix me child for the night. We got to get her in good shape before she takes that rampagin' ship for Bermudy!"

That was all, but she actually *smiled*—a weak, apologetic little smile—before she vanished from the doorway!

The girls stared at each other in complete bewilderment. Never had they witnessed a change more astonishing.

"Well, does n't that beat everything!" exclaimed Margaret. "What could have happened to Sarah?"

"I don't know," answered Corinne, "except that Father 's had a talk with her. He told me, coming over, that your mother had called him up to-day on the telephone, explained some of the trouble, and asked him to call to-night. He said he himself was going to have an interview with Sarah, and I told him it probably would n't do any good. But he said he had something that he thought would convince her ladyship pretty speedily. But he also said I was *not* to ask him what it was! Some time he might tell me, but not at present. Is n't that mysterious! I really did n't think he 'd succeed. But he evidently has! Hurrah!"

"But what *can* he have said to Sarah that would make her change around so!" marveled Margaret.

"I 'm sure I can't imagine!" cried Corinne. "But never you mind, Honey dear! A week from next Friday we step off on the island that was Alison's home! And nothing else matters!"

CHAPTER XVIII

TWO SURPRISES

"It seems awfully queer to me," remarked Bess, sitting in the Charlton Street parlor one afternoon in May, reading a recently received letter with a foreign postmark, "that Margaret says absolutely nothing at all, lately, about whether they 've done any work in hunting up clues to the sapphire signet mystery!"

"Neither does Corinne," added Jess, looking over a similarly marked letter that she held. "They 've neither one mentioned the subject since they sent us that snap-shot of the Tobacco Rocks some weeks ago. Corinne said then that they 'd driven to see them one day, and she had 'snapped' them for our special benefit, because Alexander had discovered that it was from there the stolen gunpowder was shipped. I don't think they had much, if anything, to do with *our* affair, so I was n't so much interested in them. I never felt at all convinced that those two happenings had any connection whatever."

"Nor I, either!" agreed Bess. "I wonder whether they *have* looked up anything about Alison, or whether they 've been having such a good time that they 've forgotten it completely! My! but I envy them! Here we are in this mussy, foggy, chilly, wretched city,—grubbing along at high, without even time to have a game of basket-ball, lately! And listen to what Margaret says of their surroundings:

"'You never saw such blue, blue water in your life! And the weather 's so warm that Corinne and her father have been in bathing several times! I never saw any one *swim* before! Corinne swims beautifully! It is so lovely in this place that I 'm sure Heaven could n't be any more beautiful. I begin to feel so much stronger! I 'm out every day and all of the day! Is n't that wonderful—for me! Mr. Cameron says he feels like a new being, too. We are going to stay two weeks longer, because it 's doing us all so much good.'"

"Bless her heart!" cried Jess. "I 'm just the gladdest girl that ever was because she could go and is getting on so well. Do you know, I believe she 'd have died pretty soon if she 'd kept on as she was the last of the winter! I felt perfectly certain then, that she was n't going to live, though I never told a soul! I was absolutely in despair about her!"

"Same here!" echoed Bess. "I was going through some mental tortures, too, but I was n't bothering any one else with them! Corinne and her father just saved Margaret's life, I believe. But here 's something queer in her letter! I just came to it. She ends by saying:

"'We have *two surprises* for you, but you are not to know a thing about them till we get home! Oh, I can just see you *wiggling* with impatience to know what they are! But it 's useless for you to beg; not a word will we whisper till we land in America!'"

"Now *what* do you make of that?" demanded the bewildered Bess.

THE day came, at last, when the travelers were expected to land once more on their native shores. To the twins it had seemed an interminable age—the more so since the intended absence of a month had lengthened itself to ten long weeks. It had taken longer to restore Mr. Cameron's health than he had imagined, and, besides, Margaret had improved so perceptibly that they decided to stretch the time of the trip to the limit.

They had sailed away on a stormy day in March. They were expected back on the rarest kind of a day in June, and the entire Charlton Street household was assembled at the pier to meet the incoming steamer. This had been the request of Mr. Cameron himself, who had written to Mrs. Bronson that, for a sufficient reason, he wished every one of them to be there, including Sarah.

It was four o'clock on a golden afternoon when the *Bermudian* came steaming slowly up the river, picking her stately course among the heavy ferry-boats and darting tugs that blocked the way. Alexander, from a perilous perch on one end of the pier, announced its coming with a whooping and a waving of his cap, at which Sarah muttered awful remarks, sounding like "Let him drown if he falls over—the young spalpeen!" With beating hearts they scanned the decks as the vessel drew close to the side, and the twins quickly picked out Corinne and her father waving from the side. But of Margaret they could discern not a sign, and an awful dread seized them that she must be too ill to be with the others.

By a special permit, obtained through Mr. Cameron, they had been admitted within the custom-house lines to the very gangway entrance itself. After maddening delays the vessel was at last made fast, the gangways adjusted, and the throngs began to come ashore. It was toward the last that the ones they were waiting for

so anxiously appeared at the top, and then it was only Corinne and her father and aunt who came down.

"But, oh! where is *Margaret?*" cried Bess, as Corinne rushed to embrace her. "Why is n't she with you?"

"Oh, she 'll be along in a minute!" announced Corinne, unconcernedly. Then suddenly she turned, and said quietly:

"Look!"

They turned at her command, and glanced upward expecting to see their sister in her usual wheel-chair. Instead, there at the top of the gangway—stood Margaret, rosy, plump, and browned by the sun! And under her arms were a pair of *crutches!* When she saw her own family below, she blew them a kiss, adjusted her crutches, and proceeded down the gangway alone, haltingly, it is true, but refusing the assistance of the anxious steward who hovered behind her!

To the members of her family, who never in all their lives had beheld her on her feet, the sight was almost overwhelming. The twins and their mother were actually too stunned to speak, and Alexander relieved himself only by a low-muttered, "*Can you beat it!*"—his favorite expression of surprise. But it was Sarah who did the most astonishing thing. She tore up the gangway, snatched Margaret when she was but half-way down, and bore her back, crutches and all, to the group below, crying:



"THERE AT THE TOP OF THE GANGWAY—
STOOD MARGARET."

"Me little darlint! It 's true! It 's true! I did n't believe it!"

THE Charlton Street house was a scene that night of such festivity and rejoicing as it had probably never known before in all its history. Corinne and her father and aunt had accompanied the Bronsons home, and stayed to a feast that Sarah had evolved in some sudden and mysterious manner. Then, when the older folks were still talking hard and fast, the five young people drew apart by themselves, and Jess said:

"Now, for goodness' sake, explain the whole business again! My brain is so bewildered I can't seem to understand it all yet!"

It was Corinne who tried to straighten out the tangle. She told how, before they started on their trip, her father had suddenly become possessed with the idea that perhaps something could be done to help Margaret's trouble if only the right physician could be found. It happened that he was personally acquainted with a doctor famous for his success in this very kind of case, and who also usually spent a few weeks at that season of the year in Bermuda. If Margaret could be helped by any one in the world, Mr. Cameron felt sure it would be by this surgeon. So he privately made up his mind that the famous specialist should be consulted as soon as they got there. But of this he said not a word to any one, lest it



should only be a cause of disappointment in case no good was accomplished.

Corinne laughed, however, when she said there was one exception to this. On the night when Sarah had issued her awful ultimatum, Mr. Cameron made up his mind that the only way to influence her was to tell her, privately, his hopes for Margaret. This he did, and it had the remarkable effect that had so bewildered them. This, also, was the reason why Sarah seemed the least surprised and had said such strange things that day at the pier.

The doctor had been consulted soon after they reached Bermuda and when Margaret had grown a little stronger. His verdict was that with a certain kind of treatment there was a slight hope that she might some day recover the use of her limbs. This treatment she had had during the whole of their stay, with the wonderful result that, two weeks before their return, Margaret took her first steps with the crutches. The specialist himself was returning to New York shortly and would continue his work with her. He was now almost positive that she might, in the course of time, even discard her crutches

and walk alone, on her two feet, unassisted, like the rest of ordinary humanity. It was a treat to watch the beaming happiness on Margaret's face while Corinne rehearsed this tale. It spoke more eloquently than any words.

"Well, that 's your big surprise!" sighed Bess, contentedly. "And it certainly is a monster one! Now what 's the other? You know you wrote that there were two!"

"The other 's almost as big!" exclaimed Margaret, her eyes snapping with eagerness. "We 've found out the *whole* history of Alison, and solved every bit of the mystery!"

"No!" cried three of the listeners in astonishment. "Honestly? Tell us—right away! We thought you 'd forgotten all about it!"

"No," said Margaret, "I 'm not going to tell you just now. To-morrow we 'll have a big old meeting of the Antiquarian Club, and we 'll give the entire account then! Not a minute before!"

"But did you find the owner of the sapphire signet?" they clamored.

And to this, also, the provoking Margaret would only lay her finger on her lips, and smile, and murmur, "*To-morrow!*"

(To be concluded.)



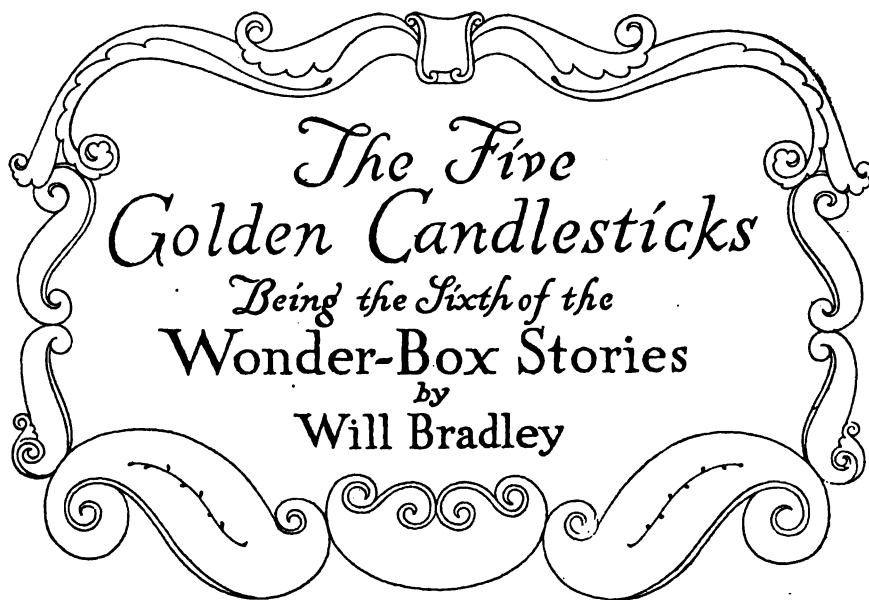


THE SOOTHSAYERS

Down in the meadow the daisies are growing,
 Crowded as close as white sheep in their fold;
 Down in the meadow are buttercups glowing,
 Scattered like little bright pieces of gold;

And down in the meadow the children are going—
 There 's where a fortune may truly be told.
 Daisies just know if your true love will smile—
 Buttercups tell what is really worth while!

Grace Edwards Wesson.



The Five Golden Candlesticks

*Being the Sixth of the
Wonder-Box Stories*
by
Will Bradley

ONCE upon a time there lived a man of some threescore and ten years who was such a student that folks said no problem might be made in either algebra or geometry, however difficult it might be, that he could not easily give its solution. Indeed, so great was his learning and so broad his wisdom, that some there were who even whispered he had occult powers, and some who declared he dived in Black Arts.

Now of these latter matters I have no definite knowledge, and so cannot say whether they were true or false. But though I like little to listen to gossips, there fell a word here and a word there which came in at one ear and did not run out at the other, so that in the end, willy-nilly, I must needs think of the Old Man that of strange lore he knew somewhat more than a little.

On a day in spring, when all the world was glad with birds singing in the leafy branches, and yellow daffodils laughing in the green fields, the man called to him his two sons, and said: "Now has the time come when it were well for you to go out into the world, where more may be seen than is to be found within the four walls of this house or the four corners of the town. There is little that I can give you of gold to aid you on your journey, for so it is with a student that often he is ill paid. Yet, by good hap, you need not go wholly penniless. See! here are Five Golden Candlesticks—little, and easy to carry. Keep them ever by you, and 't is like they will aid you in time of need. Here also are a few silver pennies. Spend them wisely."

No sooner did their father cease speaking than

the elder son stepped briskly forward and held out his hands to receive the candlesticks and the silver pennies, for he loved pleasure and he was thinking how much of it these would buy out in the big world.

As for the younger son, he was not in such a big hurry; and if one had looked into the corners of his two eyes, there might have been seen a pearly tear in each, for he thought: "My father is now an old man, and mayhap, when I return from my travels, he too may have gone on a journey, and, belike, this day I am saying a last good-by."

Then he thought of the Five Golden Candlesticks, and how they had always stood on the mantel in the parlor, and how in his father's study were five little ones of pewter, and he said:

"Father, thou hast given us the Five Golden Candlesticks, and my half will I gladly give to my brother. Also, thou hast given us a handful of silver pennies, and my half of these will I give to my brother. Yet will I ask of thee a gift that I may have as my very own—no less a one, in fact, than the Five Pewter Candlesticks that, from a child knee-high, I have seen each night alight in thy study."

Now, while the young lad was speaking, his brother could hardly keep from laughing. "Silly! Silly! Silly!" he kept saying, "to give up gold and silver and take only pewter!" But he did n't say this out loud, for he was glad to have his brother's share and the good times it would buy him.

As for the father, he did n't say no to the proposition, and there was such a merry twinkle



"SHE LOOKED OVER THE HEDGE, WHERE SHE SAW THE YOUNG LAD AND HEARD THE SWEET NOTES OF HIS LUTE." (SEE NEXT PAGE.)

in his eyes that, had I been the elder brother, I would have thought twice before entering into such a bargain.

Well, when the sun was in the west, with its slant rays throwing cool shadows along the highway, off stepped the two lads. In the knapsack of the elder were the Five Golden Candlesticks, and in his pocket a merry jingle of silver pennies. In the knapsack of the younger were the Five Pewter Candlesticks, and in his pocket only a cold pasty. But at his side there was slung a lute; and as he listened to the evening carols of the birds and the little breezes astir in the leafage, he composed sweet notes and thought that on the morrow, were his heart less heavy over parting with his father, he would play them upon his lute and sing such words as might come to him.

Night drew on ere they reached the first town, and the moon rose silver above the tree-tops. Nothing would do now but the eldest son must hunt out the finest inn and buy the best of everything. As for the younger lad, why, he still had a bit of cold pasty in his pocket, and what could there be finer than a mossy bed beneath an oak?

On the morrow the young lad was up with the sun, and when he had bathed in the river and had eaten the last of his pasty and washed it down with a good drink of cold spring water, he set his back to the trunk of the big oak, and, tuning his lute, sang such a song as befitted his mood and the joy of a May morning. For so it is with a lad, that sorrow runs off him lightly and with the new day comes a new hope.

Meanwhile, at the inn the elder son slept soundly, and in his pocket there were not two silver pennies to jingle one against the other, neither was there even one penny.

Here we will leave the two lads for a while and tell of the Young Queen who ruled in that realm. So beautiful she was and good that all had been joy and happiness throughout the land if only she would consent to choose a husband, and thus save the bitter strife and enmity of the princes who sought her hand and who were forever holding tournaments and fighting battles to show their bravery and win the approval of the Queen.

The Lord High Chancellor and all the dignitaries of the court held councils until far into the night. The wise men searched their great books, and the astronomers studied the stars. But no remedy could be found.

Thus it was that on the morning in May when the young lad sang beneath the oak-tree the Young Queen, weary of the pleading and importuning of her elders, having retired to her country cottage some miles from the palace, heard such sweet singing as she had never heard in all

the days of her life. So she arose and opened wide the casement. Nor being content with that, she straightway dressed, and, hurrying to the garden, went to the outermost bounds and looked over the hedge, where she saw the young lad and heard the words of his song and the sweet notes of the lute.

Only one look did she take, when her heart gave such a bound that off she sped light of foot through the grass to the gardener's cottage. "See, Gardener," she said, "so and so and so."

Well, the end of the matter was just this: hardly had the lad finished his song when the old gardener was inviting him into the garden, where whom should he see but the Young Queen. Sharper eyes it would take than yours or mine or the lad's to know her for the Queen, for she wore no royal robes, but was dressed in a smock and big hat, for all the world like the gardener's daughter. This, in very truth, was what the lad deemed her, and he thought that nowhere in all the world might be found a maid more beautiful.

After that, as you will quickly guess, it was n't long before the lad was bowing, and saying "How do you do?" to the Young Queen. Then, how would the lad like to come and work in the garden? See! there was much planting and pruning to be done, and the gardener sorely needed an assistant.

Of course the lad did n't say "No" to that proposition; and so he became assistant gardener, and each day worked among the flowers with the Young Queen. In the evening he would play upon his lute, and sing sweet songs of birds and brooks and the whispering wind in the branches, of shepherds and shepherdesses and the tending of gentle flocks. All the while, as he played and sang, the Young Queen listened, and with every song her heart grew fonder and fonder of the lad, and she sighed and wished she were in very truth the gardener's daughter, so that she might remain forever in the garden and never have to attend to weighty affairs of state. Also, being a Queen, she could not wed her assistant gardener, which in all the world was the thing she most desired. As for the lad, never before, in all the days of his life, had he known such sweet contentment, and he thought: "Never was born a maid so dear and kind. Mayhap, in time, she will care as much for me as I do now for her." So glad of heart he was, and so joyous, that sad indeed to him were those days on which the Queen must needs go to the palace. Sad, also, were those days for the Queen; and all through the long afternoons, as the lad watched the highway for her return, she too was all impatience.

Where the Queen went at such times the lad

did not know, but as she always carried an armful of beautiful flowers, he thought, "Mayhap it is to some one who is ill, or to her old nurse, or to some friend." Had the lad walked to the brow of the first hill, he would have seen how, in the hollow beyond, there awaited the Queen a coach and two pairs of prancing horses, with coachmen, footmen, and outriders.

Meanwhile, the elder brother was living merrily at the inn, going to masquerades and balls at night and entertaining royally. One by one he sold the Golden Candlesticks, until none remained. Then, when the last penny was spent and the landlord was for turning him out into the street, he thought, "Now I will find my brother, and perhaps I can borrow something from him."

So it was that, on a day when the Queen was at the palace and the young lad was at work among the roses, who should come stepping up the path but the elder brother. When the elder brother went down the path again and the gate clicked behind his back, the silver pennies that jingled in his pocket were all the young lad's savings.

On this same day there were stormy councils held at the palace. The elders and venerables one and all insisted and demanded that the Young Queen should choose a husband. What the Prime Minister could have done under such trying circumstances, it would be hard to guess. But just then there came to the palace an old man with somewhat more of wisdom than his fellows. Straightway this old man went to the Queen, and, though I know naught of what he said, this I do know, that no sooner had he departed than there was made a proclamation bearing the Queen's royal seal.

This was the proclamation: "To him who proves his bravery by bringing the Black Diamond from the Cave of Darkness in the Valley of the Four Winds, the Queen will extend her royal favor and give him favorable consideration in the suit for her hand."

Heralds now rode forth with such speed that ere night not a hamlet or village throughout the realm was without the news.

In the evening, when the Queen returned to the cottage, the lad was waiting for her in the rose-garden. There she told him of the proclamation.

"The Black Diamond from the Cave of Darkness in the Valley of the Four Winds! That certainly is a perilous undertaking," said the lad. "Yet it might be accomplished if one but had the sight of an owl. Belike too, when the Queen has the Diamond, she will want the Rose with the Heart of Pearl from the Garden of the Five

Gates, and the Bird with Wings of Gold from the Fairy Forest, and the Pomegranate with Heart of Honey from the Ogres' Orchard. After that, before she bestows her heart and hand, she will demand—"

"But," interrupted the Queen, her eyes big with wonder, "how did you know all this?"

"Oh, I am but guessing," answered the lad, as he picked a few notes upon the strings of his lute. "My father is a great student, and from him I learned a little of this, that, and the other, so 't is but the same as putting together two and two to make four." Then he struck a chord upon his lute, and sang of the moon and roses and love in such wise that the Queen cast down her eyes, not daring to look upon him, for she knew the words were made for her.

When the song was finished, the Queen held out her hand to the lad, and though he kept it overlong to say good night, she did not withdraw it, but looked upon him full kindly, and thought: "Thou art a dear lad and a good gardener, and dost play and sing full sweetly; and day long hast thou been such a companion as never might a maid wish better. Yet do you deem of me that I am but the gardener's daughter, and now I am sore grieved to have deceived you, for I am a great and mighty Queen and may not wed a gardener. And more the pity is that, too, for unto a gardener have I given my heart, and with him above all others would I share my throne." All of this the Queen thought ere she withdrew her hand from the lad's, but she only said:

"Good night, dear lad, for to-morrow I must depart early."

Said the lad: "Now has sorrow blighted the garden, and the sunlight is hidden behind a cloud; no more will bud burst into bloom, or bird sing to its mate until you come again."

"Oh, dear lad," thought the Queen, "if only you could go to the Cave of Darkness in the Valley of the Four Winds and get for me the Black Diamond!" Yet of this thought she said nothing to the lad, but only sighed, and, again bidding him good night, went into the cottage.

When the lad was alone, he took his lute and went to the far end of the garden, as was ever his custom. And he thought that this night, above all others, he would compose such a song as might tell of all the hope within his heart.

Yet did the lad not sing the song on that night, nor the next, nor the night after, for it happened that, as he came to the end of the path near a hedge of clipped yew, he heard voices on the overside. Now, though at first he did not intend to listen, some of the words so held his attention that in the end he heard them all. No wonder

was that either, for the talk ran all about the Queen's proclamation, and in it there was said that, if one only had the Pewter Candlestick that had once belonged to King Solomon the Wise, it would be no hard task to win the Black Diamond.

No sooner did the lad hear these words than off he sped to his room, for on the Pewter Candlesticks that had been given him by his father, and which now stood upon his mantel, there were engraved the hieroglyphics which he knew full well to be the seal of Solomon the Wise. Also, on each there was a strange device, the meaning of which until now he had never known. On that particular Candlestick which he quickly chose, and in which he lit a candle, there was carved a round cat's-eye.

"By the mighty wisdom and power of Solomon I bid thee give me sight beyond that of mortal man." These were the words that had been spoken on the other side of the yew hedge; and hardly had the lad finished repeating them, than the flame glowed and glimmered with such a light as is seldom seen in the world. Then it died down, flickered, and went out; and though the room was left in total darkness, to the sight of the lad all was as clear as bright sunlight.

To tell all that happened on the trip that night to the Valley of the Four Winds and the Cave of Darkness would take far too long. On the road the lad passed knights and princes who were lost in the murky forests or stuck in the mires and bogs. When at last he reached the heart of the Valley and the entrance to the Cave of Darkness, there was no sign of life save only the doleful hooting of the great owls in the topmost branches of the trees and the slimy rustle of the reptiles that, without sight, moved from rock to pool and pool to rock in the dark, oozy depths of the Cave. All of this the lad could see as plain as could be. Also, he had no trouble in finding the Black Diamond; the Pewter Candlestick had given him such sight as made murky darkness as bright as day.

Of the return journey there is only this to tell, that, of those he had passed in the night, all now were discouraged and turning back. No one saw him come out of the Valley of the Four Winds, and of course no one knew he had the Black Diamond. What he would do with it he had n't thought, but this he did know: he would not go to the palace and present it to the Queen, for, even though she were as fair as folk said of her, yet was there one that to him was more fair, and be-like he would give the Diamond to her.

When at last he reached the hollow near the cottage, there stood the royal coach, and some one was just stepping in at the door. Then the whips cracked, and away dashed the horses and

outriders. As the coach passed him, the curtains were drawn, so he did not see the occupant; but when he came to the cottage, the sun was an hour high and the maid had already departed.

That day, as the lad was pruning the roses, who should come through the gate again but the elder brother. He had spent all his money, and that was a pity too; for if he only had a little, he would go to the Valley of the Four Winds and get the Black Diamond. After that, he would marry the Queen, sit on the throne, and be a King.

Well, if that was all the elder brother needed to make him a King, why here was the Black Diamond and welcome.

Yes, that is what the young lad said. Of course, he did n't know that the maid he thought to be the gardener's daughter was really the Queen, and I, for one, am sorry she did not tell him on the night before, in place of just thinking about it and keeping her thoughts to herself. However, the milk was spilled now, so of what avail to bemoan it? Already the elder brother was only a speck far down the road.

When it was known that the elder brother had the Black Diamond, the innkeeper scraped and bowed and paid him such honor as though he were already the King. Tailors dressed him sumptuously, servants were provided. A beautiful coach drove up, and off went the elder brother with the Black Diamond to the Queen.

That night, when the Queen returned to the cottage, she seemed somewhat sad. But she told the lad all the news, and how the town was all abuzz, and saying there would soon be a wedding up at the palace.

"But," said she, "the Queen has now asked for the Rose with the Heart of Pearl from the Garden of the Five Gates."

"Yes," said the lad, "and that will be a harder task than the other; for how is one to find a single rose among a million?"

"I do not know," said the Queen, "but a good rose-grower might find a way." Then she said good night and went into the cottage.

That night, after the lad had played a tune or two upon his lute, he went to his room, and no sooner did he look at the Candlesticks than he doubled up with laughter, for the device engraved upon the second seemed double the usual size, and without doubt it was that of a nose.

I won't take time to tell you all about how the lad lit a candle in the second Candlestick, and how immediately he had power to know every fragrant scent of every flower that ever grew and every individual scent of every species. Neither will I tell you all about his trip to the Garden of the Five Gates, and the finding of the Rose with



"THE QUEEN GAZED INTENTLY AT HER CRYSTAL GLOBE." (SEE NEXT PAGE.)

the Heart of Pearl. Also, we will not take time to tell about his return the next morning one hour after sunrise, and about passing the coach in the hollow, and about the maid having departed. Of course, too, you must know that where the elder brother found luck on one day he would look for it again on the next. Well, all of this is exactly what happened.

Yes, the Queen now had the Rose with the Heart of Pearl that had been brought to her by the elder brother. All of this she told to the lad that night upon her return to the cottage. Also, she said that now the Queen had asked for the Bird with Wings of Gold.

"That will be a difficult accomplishment," said the lad.

"It should be easy for one who knows the bird's song," said the Queen.

That night it happened as on the night before, only this time it was the third Candlestick that the lad lit, upon which was engraved an ear. Then there was no song of bird, no matter how faint, that the lad could not hear.

Well, everything happened now as it had before; the lad found the Bird with Wings of Gold, which the elder brother gave to the Queen. She now asked for the Pomegranate with Heart of Honey.

All of this the Queen told to the lad that night.

"A Pomegranate with Heart of Honey may not be found by every one," said the lad.

"It might be found by a gardener," said the Queen, and there were tears in her voice.

This time it was the Candlestick on which was graven a tongue that gave the lad the power to taste all the wonderful flavors of the world. Of course, with this wonderful power, he found the Pomegranate with Heart of Honey. Of course, too, it was the elder brother who took the Pomegranate to the Queen.

That night, when the Queen returned to the cottage, she was almost too sad to talk, for on the morrow she would stand in line with five hundred other maidens. All would be of the same height, all dressed alike, and all blindfolded. Each maiden would hold out one hand, and the suitors passing down the line would touch each hand. Thus must be determined which was the Queen.

But this was not all the sauce to that pudding. No indeed! The elders and venerables were tired of Black Diamonds, and Pomegranates, and all such fol-de-rol. Now the Queen must be wedded for sure and certain, so not only would there be the elder brother, but also twenty princes of the realm to make the choice.

"Well," said the lad, laughing, "if the other adventures were difficult, this one at least is not;

for what lover could not easily thus find his own maid? Surely, not one but twenty will there be to claim the Queen."

Now was the Queen no longer sad.

On the morrow the lad was astir early, and so it happened that, as he walked abroad and came to the hilltop, he saw the royal coach in the hollow and the maid stepping slowly through the door, after which she turned around and waved her hand. Then away galloped the horses.

Long the lad sat upon the hillside pondering the strange happening he had seen. Then he thought, mayhap the gardener's daughter is to stand in line with the Queen, and tumbling after that thought came another: "Mayhap she will be chosen by some prince, for even the Queen can not have a hand so fair as hers."

With this thought tingling in his brain the lad took his lute and set forth for the palace.

Meanwhile the Queen sat alone in the window of the music-room of the palace, gazing intently at her crystal globe, and there she saw the lad stepping along the highway and at last reaching the very gates of the palace. The masked musician in the outer hall watched her every move to find some hint or trick by which he might know her, for he was really the elder brother. Thus it happened that he did not notice the entrance of the lad, who was soon lost amid the throng. Meanwhile, preparations were made for the choosing, and away went the Queen to join the others. But on the way she whispered a word to the Prime Minister.

When the line was formed, out stepped the twenty princes and the elder brother. Out stepped also the lad, for that is the word the Queen had whispered to the Prime Minister. At home on his mantel was the fifth Pewter Candlestick, which would have given him the power of touch. But this, loverlike, he would have scorned.

Of course, he walked straight to the Queen and took her hand before the others had even time to guess which way to turn. And of course, when they unmasked, he thought she was only the gardener's daughter.

Well, after that they were wed, and spent their honeymoon at the little cottage, and lived and reigned happily ever after.

The elder brother and the princes each chose beautiful maidens, and they too were wed.

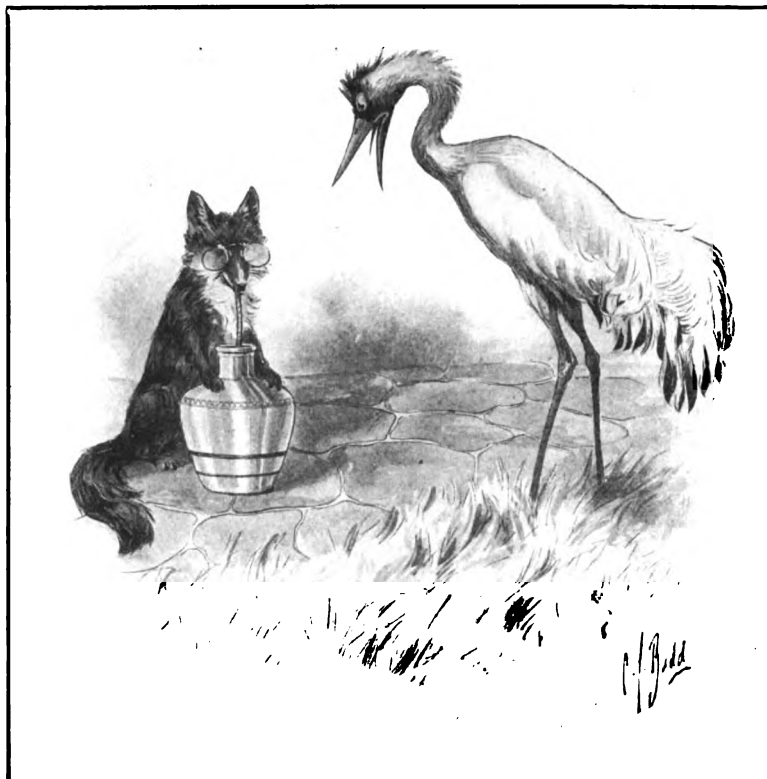
As for the Five Golden Candlesticks, I do not know what became of them, and, now that the tale is finished, if the title of a story came at the end in place of at the beginning, I would call it:

The Five Pewter Candlesticks.
Would n't you?

OLD FABLES BROUGHT UP TO DATE

(Just for fun, and with apologies to Aesop)

THE FOX AND THE STORK



THE OLD-TIME FABLE

THE Fox invited the Stork to dinner and provided for the occasion nothing but a soup, which he served in a wide, shallow dish. This he could lap up with ease; but the Stork, who could but just dip in the point of his bill, could not get a bit.

A few days after, he returned the compliment, and invited the Fox to dine with him, but suffered nothing to be brought to the table but some minced meat in a glass jar the neck of which was so deep and so narrow that, though the Stork with his long bill could eat this very well, all that the Fox could do was to lick the brim.

Reynard was heartily vexed when he found the tables turned upon him in this way, but he was obliged to own that he had been used as he deserved.

MORAL: Those who practise cunning must expect to suffer by it.

THE FABLE BROUGHT UP TO DATE

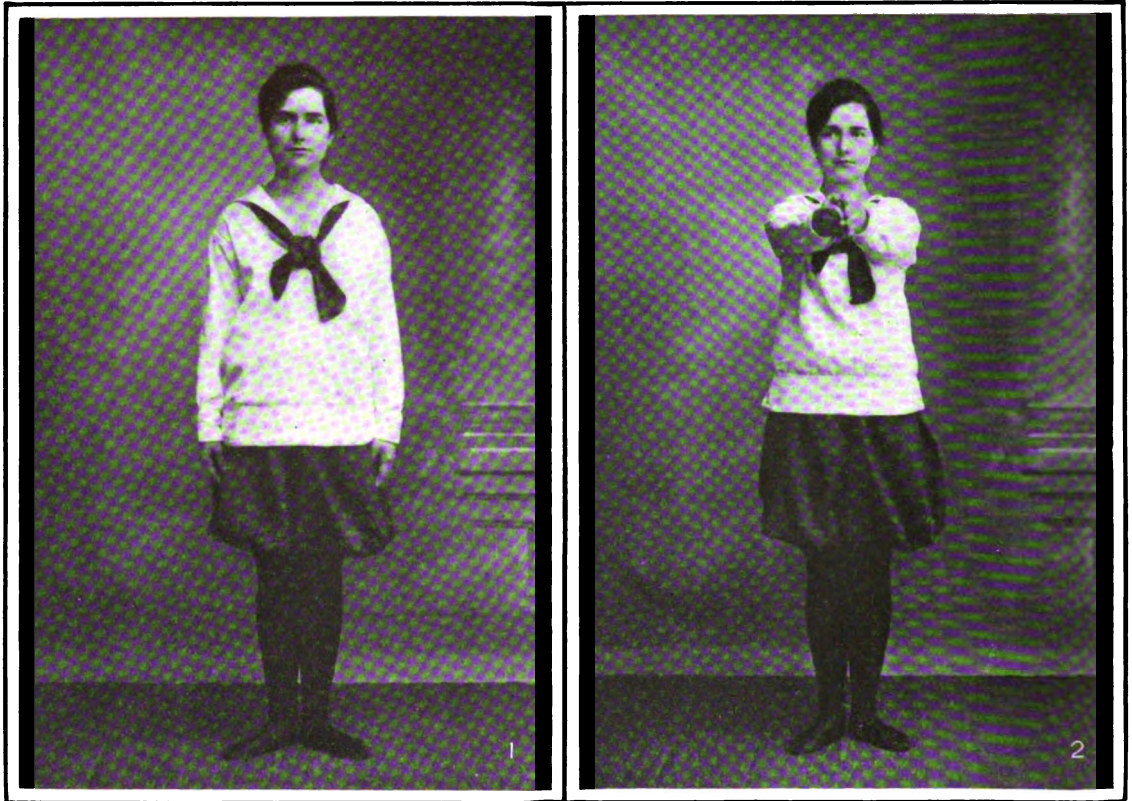
ONE time, many years ago, a Fox invited the Stork to dine. For a joke, the Fox had the meal served in a shallow dish and Mr. Stork could do nothing but moisten the end of his bill. Not to be outdone by a silly Fox, Mr. Stork invited the Fox to dine with him, and served his dinner in a long-necked jar with a narrow mouth. Now this was a foxy Fox, and thinking the Stork would play some joke in return for the shallow dish, he came prepared, and brought many things in a suitcase. Therefore when Mr. Stork thought to get all the food from the long-necked jar with his long beak, Mr. Fox bustled over to the suitcase, and, bringing out a long piece of bamboo, inserted one end in the jar and drew up all the food for himself before the astonished Stork recovered from his surprise.

MORAL: He laughs best who laughs last.

C. J. Budd.

SETTING-UP DRILL

BY LEONHARD FELIX FULD, LL.M., PH.D.



Every soldier in the United States Army must go through the setting-up drill daily to keep himself in good physical condition. Every person who wishes to keep the body in good health and vigor should learn these simple exercises and devote a few minutes every morning to them. Stand with head erect, spine straight, heels together while performing these exercises, and go through each movement with vigor. Repeat each exercise eight times.

EXERCISE ONE

FIG. 1 Arms hanging loosely at sides, little fingers touching thighs.	FIG. 2 Raise arms forward, shoulder high, palms touching.	FIG. 3 Fling arms sideways, shoulder high, palms facing upward.	FIG. 2 Swing arms forward, shoulder high, palms touching.	FIG. 1 Lower arms to sides, little fingers touching thighs.
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EXERCISE TWO

FIG. 1 As above.	FIG. 2 As above.	FIG. 4 Raise arms above head, palms touching.	FIG. 2 As above.	FIG. 1 As above.
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EXERCISE THREE

FIG. 1 As above.	FIG. 3 Fling arms sideways, shoulder high, palms facing forward.	FIG. 4 As above.	FIG. 3 Swing arms sideways, shoulder high, palms facing upward.	FIG. 1 As above.
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EXERCISE FOUR

FIG. 1 As above.	FIG. 5 Raise arms sideways, shoulder high, bend elbows, place fingers on shoulders.	FIG. 6 Swing elbows forward.	FIG. 5 Swing elbows sideways.	FIG. 1 As above.
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ON THE BATTLE-FRONT OF ENGINEERING

BY A. RUSSELL BOND

Managing Editor of "Scientific American," and author of "With Men Who Do Things"

CHAPTER IX

KELLY'S GASOLENE ELEPHANT

"Look, Jack, look!" cried Perry, clutching his chum's arm and pointing down the road. "What do you call that?"

The boys were out sight-seeing in the suburbs of Chicago while Mr. Barto was attending a conference in the city.

It was indeed a most extraordinary sight that Perry pointed out. There in the middle of the street, too far away to be distinguished very clearly, was an object that looked like a small house, but it was going through the strangest, spasmodic motions.

"What in the world is it?" exclaimed Jack.

"It must be a house they're moving; but for the life of me I can't make out why it bobs up and down so."

"It looks to me as if it were walking," said Jack. "See those feet at each side. There—it is lifting them! Now it is planting them down on the ground and raising itself on them."

"You're right, Jack," agreed Perry. "It is a walking house!"

Both boys started on a run to get a closer view of the curious object. As they drew nearer they saw that a long steel boom projected from the rear of the contraption, and a drag-bucket was suspended from the boom. There was a big gasoline-engine aboard the strange craft, and a lot of gear. It was very evidently an excavator of some kind, but never had the boys seen such a curious means of locomotion as this machine possessed.

They stared at it for a moment, and then both burst out into shouts of laughter. It was a most ridiculous spectacle. Here was this big, awkward machine sitting on a broad turn-table, while at either side were the feet, each consisting of a pair of I-beams with wooden treads. Each foot was attached by a chain to a cam. The cams were mounted on a shaft driven by the engine of the excavator. As the cams went around they lifted the feet off the ground and carried them forward. When the feet were firmly planted, the cams rolled along upon them, lifting the machine—turn-table and all—off the ground and moving it forward. Then the machine sat down on its turn-table again while it dragged its feet forward. There were lugs on the feet that fitted into

notches in the cams, so that there was no chance for the cams to slip.

"It gets along more like a hop-toad than anything else, does n't it?" remarked Perry. "At every hop it has to sit down. It is certainly the funniest thing I ever saw. What in the world do you suppose they ever got up such a gear for, anyway?"

"Blest if I know," answered Jack. "The people hereabouts must be used to the machine. There's no crowd out to watch it go by."

"Look, Jack! It's going to turn a corner."

The machine was very deliberate. It traveled at the rate of about thirty feet per minute. It had come to a crossing, and now, with both feet lifted off the ground, it was slowly swiveling itself around on the turn-table.

"Well, is n't that neat!" exclaimed Jack. "It just sits down in its swivel-chair, swings itself around to a new point of the compass, and then gets up and walks off in the new direction."

"Please, Mister," said Perry, accosting a pedestrian, "what do you call that thing, anyway?"

"Oh, that's Kelly's gasoline elephant," answered the man. "He rides home on it every Saturday afternoon."

"Why in the world does he do that?" asked Perry.

"Well, as long as the machine has legs, why not use them? That's what *he* says."

"But I mean," stammered Perry, "what's the machine for? It is n't intended to be a walking automobile, is it?"

"Well, hardly—when it takes an hour to come up from the meadows over there, and going cross-lots at that! No, I don't think any one would mistake it for a runabout," laughed the man.

"But what is it, anyway?"

"It's an excavator, a 'drag-line' excavator, as they call it," explained the stranger. "They're doing some drainage work with it down on the meadows."

"But," persisted Perry, "what's the use of legs on an excavating machine?"

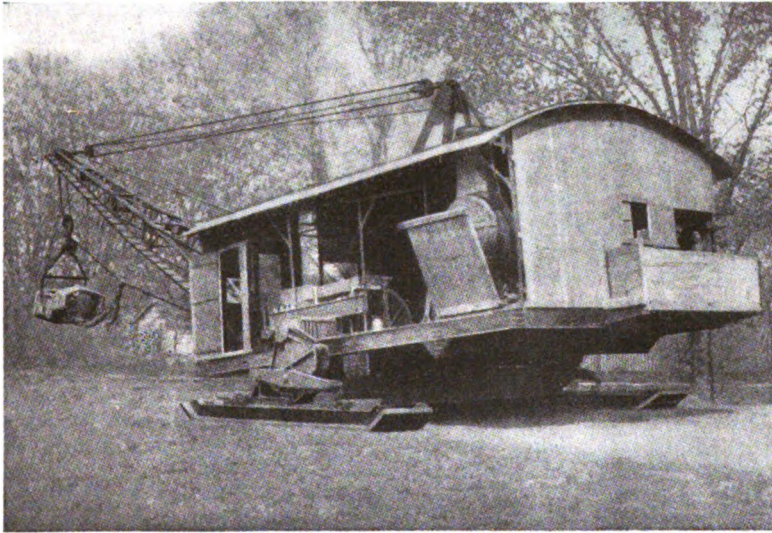
"Soft ground, my boy, soft ground," replied the man. "If you put it on wheels and tried to haul it over those meadows, the wheels would sink in to the hubs, and you could n't get anywhere. But this machine has big feet, and it can go over very soft ground without sinking in much, just as a

man on snow-shoes can travel over snow that a man with plain shoes on would sink through. Soft ground makes hard traveling for anything on wheels, because when the wheels sink into the ground, they make a hollow for themselves, and then to go on they have to roll uphill out of the hollow or else flatten down the mud before them. At any rate, they must push against a hill of mud all the time. But this machine walks just as well on soft ground as on hard ground, because of its broad feet, and because it picks itself straight up off the ground as it walks instead of sliding or

"Yes; do you know, it reminds me of that fellow in Los Angeles I was telling you about; 'Flat-wheel Kelly' Jimmy Doyle said they called him, because he had such a queer way of walking."

"'Flat-wheel Kelly?'" echoed the stranger. "Why, that 's what they call the man that runs this excavator!"

"Must be the same man!" cried Jack. "I thought I saw a familiar face in the pilot-house of the craft, but I was so busy looking at the machine that I did n't pay any attention to the engineer."



THE "WALKING" EXCAVATOR.

rolling along. When it gets to the job, it lifts its feet off the ground, and the walking machinery is disconnected from the engine; then it can swivel around on its turn-table in any direction, like an ordinary excavator. When it has to move on to a new position, it merely lets down its feet and walks. Why, if it were not for this excavator, they would have to build a railroad out over the marshes to carry the machine, because the ditches are not deep enough for floating dredges. It is a wonderful invention, but we are so used to seeing it around here that nobody stops to look at it any more. Even the horses don't mind it. But I tell you what, when it first sauntered into this section, maybe there was n't a big commotion! The horses were scared to death; we had two bad runaways, although luckily no one was hurt."

"Well, I don't blame the horses," declared Jack. "I felt 'most like running away myself when I saw the beast limping up the road."

"Has n't it a funny gait, though?" remarked Perry.

"Why don't you get him to show us how the thing works?" suggested Perry.

"All right," and the boys ran up to the excavator just as it was turning into a yard.

"Is n't this Mr. Kelly?" cried Jack.

"That 's me name," came the brisk answer. "Ye 've got me number, all right. What 's the charge?"

"Well, my name is Jack."

"Jack? I would n't worry none about it if I was you. It ain't such a bad name, ye know. I had a mule called Jack, once, and he was a credit to the name, believe me."

They all laughed. Evidently Kelly was in a humorous mood.

Jack made another start. "You know Jimmy Doyle, don't you?"

"Jimmy Doyle?" repeated Kelly. "Sure! What do you know about him?"

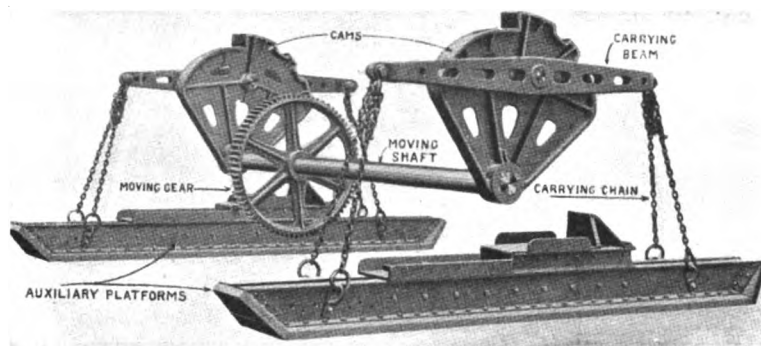
"Well, he introduced me to you in Los Angeles a year ago last winter, don't you remember? And you sent us up to Big Creek."

"Ye 're right, me boy. I remember ye now!" cried Kelly, grasping Jack's hand.

Jack winced. "This is my friend Perry," he said hastily, anxious to terminate that handshake. "Look out for him, Perry! He has a grip like a hydraulic press."

"Oh, I 'll not hurt ye," laughed Kelly. "I suppose ye come over to look at the machine. Come on in, and I 'll show ye the whole works."

He explained all the machinery, and even let



THE "WALKING" MECHANISM OF THE GASOLENE ELEPHANT.

the boys operate the walking mechanism. Needless to say they were highly pleased.

"Yes," he went on, "after I left ye at Los Angeles I come on east, thinkin' I might pick up a job more to me likin'. Ever since I got me leg hurt, I 've been lookin' for somethin' easier than sand-hoggin'. I 've tried me hand at most ev'rythin', but I never thought I 'd be drivin' a steam hop-toad like this, and in Chicago of all places. I had n't been back here since I had the accident with me leg, and I never expected to come back here again with me 'flat-wheel'."

"Oh, tell us about it!" exclaimed the two boys.

"It was a great piece o' work," began Kelly. "We was diggin' a hole in the lake—"

"A hole in the lake! What do you mean by that?" cried Perry.

"Why, a hole in the lake where the city gets its drinkin' water."

"You don't mean to say that Chicago gets its drinking-water from Lake Michigan, do you?"

"Sure!"

"But I should think it would be awfully dirty."

"Not where they get it from. They run a tunnel under the lake two or three miles out from shore. Then they come up through the bed of the lake to an intake that sets under water far enough so that it neither gets the dirt that floats along on top, nor the dirt that sinks down to the bottom. This tunnel I was workin' on was well over two miles long, and to save time they started

diggin' it from both ends and the middle at the same time."

"But how could they dig from the lake end? How could they keep the water out of the work?" queried Jack.

"Why, that 's simple," interrupted Perry. "They sank a coffer-dam and dug down inside of that, did n't they?"

"Yes, almost the same thing—a crib we call it. We drove two rings o' sheet-pilin', one sixteen

foot across and the other about eleven and a half. One ring was inside the other, and the space between was filled with clay—at least, that 's the way the half-way crib I was on was built. We had a great scheme for handling the rock we mined out o' the tunnel. We was about a mile from shore, so we rigged up a cableway—"

"What, a mile long!" exclaimed Jack.

"Yes, but it wa'n't all one span. Towers was set out in the lake about three hundred

feet apart, and the buckets for the cableway could carry half a ton o' rock."

"But why did you send the rock ashore?" Perry inquired. "Why did n't you dump it into the lake?"

"Well, we did n't want to build an island out there," answered Kelly; "and then, too, they needed that rock. They broke it up with a stone-crusher, and used it for concrete work in the tunnels."

"We had passenger-cars, too, on that cableway, but it was pretty slow traveling. It took seventeen minutes to make the trip to shore."

"Well, as I was sayin', there wa'n't no land out there, only just a crib and a two-story buildin' over it. Why, it was as lonesome as a lighthouse, only there was a hundred men of us there, night and day. You see, there wa'n't no way o' gettin' to shore except by the cableway, or by the tug that come out with the supplies to our crib and the next one."

"Did n't you have any boats?" asked Perry.

"Never a one; nor a raft, neither. Why, you could n't keep a boat out there. There wa'n't nothin' to protect us from the gales. The waves would 'a' smashed a boat to smithereens, and in winter the ice would 'a' crunched it to kindlin' wood. No, sir; they did n't think it would pay to have any boats; but say, there come a time when they wished they had them, all right! It would have paid then."

"As I was sayin', there was a two-story house on the crib. On the top floor was our mess-room and bunks, and on the first floor was the power-plant and the thawin'-room for thawin' out frozen dynamite."

"Why! does dynamite freeze?" exclaimed Jack.

"Sure it does! Ye know ye can't set it off when it's frozen, so we have to warm it up in cold weather to get the frost out."

"Is n't it rather risky?" questioned Jack.

"Not if it's done right. We was so used to havin' the stuff around that we must 'a' got rather careless. Why, I slept over that thawin'-room for months, with five hundred pound o' powder under me, and never lost a wink o' sleep over it."

"What is a thawin'-room like?" asked Perry.

"Oh, this wa'n't much more 'n a big closet with shelves to put the powder on, and on the floor was some coils o' steam-pipe, and there was a steam-gage set to keep the pipes from gettin' too hot."

"Well, I was in me bunk one mornin', just turnin' in from the night shift. A lot o' the men was in the mess-room eatin' their breakfast, and some was on their way down into the hole. How it happened, nobody knows. It might be the steam-pipes got too hot and some o' the powder dropped on 'em; but anyhow, that dynamite took fire."

"You mean it exploded, don't you?" asked Jack.

"No, I mean it burned. Ye can burn powder without explodin' it as long as there is plenty of room for the gases to pass off. But say, it burns fast all right! In a minute the whole thing was ablaze. There was no use tryin' to fight it. A few o' the men did try to get a hose onto it, but the fire was too hot, and they had to run for their lives. They tell me there is only one thing a sailor is afraid of, and that is a fire at sea. Well, I believe it. There is nowhere to go except into the water, and when the water is ice-cold, it ain't the most comfortable place in the world to stay in."

"Be the time I knew there was a fire, the flames was shootin' up all around me. There wa'n't time for nothin' except to jump out o' bed and out o' the window, and the windows were choked with men tryin' to squeeze out. There wa'n't time to

pick a good landin' place. I just jumped. Alongside the crib we had been dumpin' rock, which we had been takin' out o' the tunnel faster than we could haul it away with the cableway. This had piled up so that some o' the rock was stickin' out o' the water. As luck would have it, I landed on that pile o' rock. I'm a pretty heavy man, but I was always light on me feet. I would have been all right, only I landed on a loose rock that give way under me and then rolled down and crushed me leg. There I was pinned be the rock, with the water up to me waist, and I could n't work meself free. It was cold water, too. There was big cakes o' ice floatin' around, and some o' the men swam to 'em and climbed on. I was most choked to death with the gases from the burnin' powder. The wind blew the smoke right over me, and the fire was so near I thought it would burn me head off while the water was makin' icicles o' me legs."

"Where was the tug all this time?" asked Perry.

"That's what I was wonderin' meself. It seemed like I was lyin' there an hour, waitin' for that tug to come along, but I guess it was only about ten minutes, because the boat was just over to the other crib, and they come for us full



A SECTION OF TUNNEL CUT BY THE GIANT AUGER.

speed as soon as they seen the smoke. I was just about all in when they grabbed me, and I did n't know nothin' till I woke up in the hospital."

THAT night the boys recounted their experiences to Mr. Barto and repeated Kelly's story of the

crib fire. "I wish they were working on that tunnel now," remarked Perry. "Would n't it be a queer thing to do to take a two-mile stroll under a lake?"

"I'll tell you what we can do," said Mr. Barto. "Chicago is n't the only city that gets her water-supply from a lake. It happens that they are

"But," persisted Perry, "they must have closed off the inlets to keep the water from flowing in; then what I want to know is how the air could get into the tunnels to take the place of the water."

"But they did n't close the inlets," said Mr. Barto. "They left them wide open."

Perry looked puzzled.

"All they had to do," continued Mr. Barto, "was to raise the inlet pipes above the water-level, which meant merely adding a few feet more to the shafts. It was a simple matter to pump out the seven-foot tunnel, and there is a railroad in it now to carry materials out to the crib. But the second, or five-foot, tunnel gave lots of trouble. The pumps could n't seem to get ahead of the water it contained. It was very evident that there was a leak somewhere. But where was it? That was the problem. It was impossible to go inside and look for the leak, and it seemed a hopeless task to hunt for a break that might be anywhere along the whole line of a tunnel a mile and a half long. There

was just a chance that the leak might be at the crib or near it, and so a diver was sent down. Sure enough, he found the trouble right at that very spot. It was soon patched up, and now the tunnel is cleared of water."

"But where does the city get its water from with these tunnels shut off?" queried Jack.

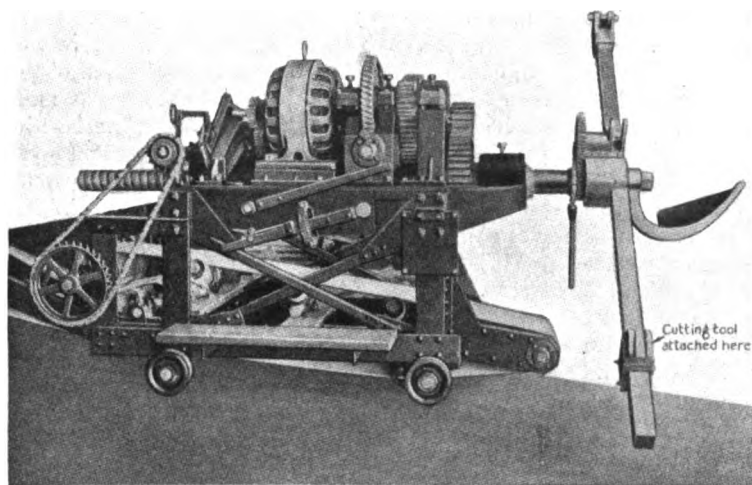
"These are not the only water-supply tunnels that run out under the lake," answered Mr. Barto.

At the crib a Mr. Palmer greeted the party and took it down into the tunnel.

"We are doing something rather unusual here," he said. "All our other water-supply tunnels have been lined with brick, but this one is lined with concrete."

"Is there anything new about concrete for tunnel linings?" asked Perry.

"Well, yes, rather," replied Mr. Palmer. "In New York's under-water tunnels the lining consists of rings of cast-iron plates bolted together, and then the cast-iron is covered with concrete. Here we do away with the iron plates altogether, and just use big blocks of concrete curved like the cast-iron tunnel-plates. These blocks are reinforced and bolted together just like the iron ring plates."



THE TUNNEL-CUTTING MACHINE.

digging such a tunnel at Cleveland, now. We'll stop off there on our way to New York, and I'll take you out for a stroll under Lake Erie, four miles from shore."

CHAPTER X

BORING A TUNNEL WITH A GIANT AUGER

THE water-supply tunnel at Cleveland was at a most interesting stage when our party stopped over to inspect it.

About a mile and a half from shore there was an old crib that covered the inlet of the first water-supply tunnel of the city. Later, another tunnel had been driven out to the same crib. The first tunnel was five feet in diameter and the second was seven. Now they were driving a new tunnel, ten feet in diameter, from this crib to a new one three miles farther out.

Mr. Barto and the boys were on their way to the old crib in a tugboat. As usual, Perry was full of questions. The first thing he wanted to know was how they got the water out of the old tunnels so as to get down into them and join them up with the new.

"Why, they pumped them out," answered Mr. Barto.

"That must be more economical, but I should think the blocks would be pretty heavy to handle," remarked Perry.

"They are, but we have a machine to handle them. It is something like the machine they use in New York to handle the cast-iron ring plates."

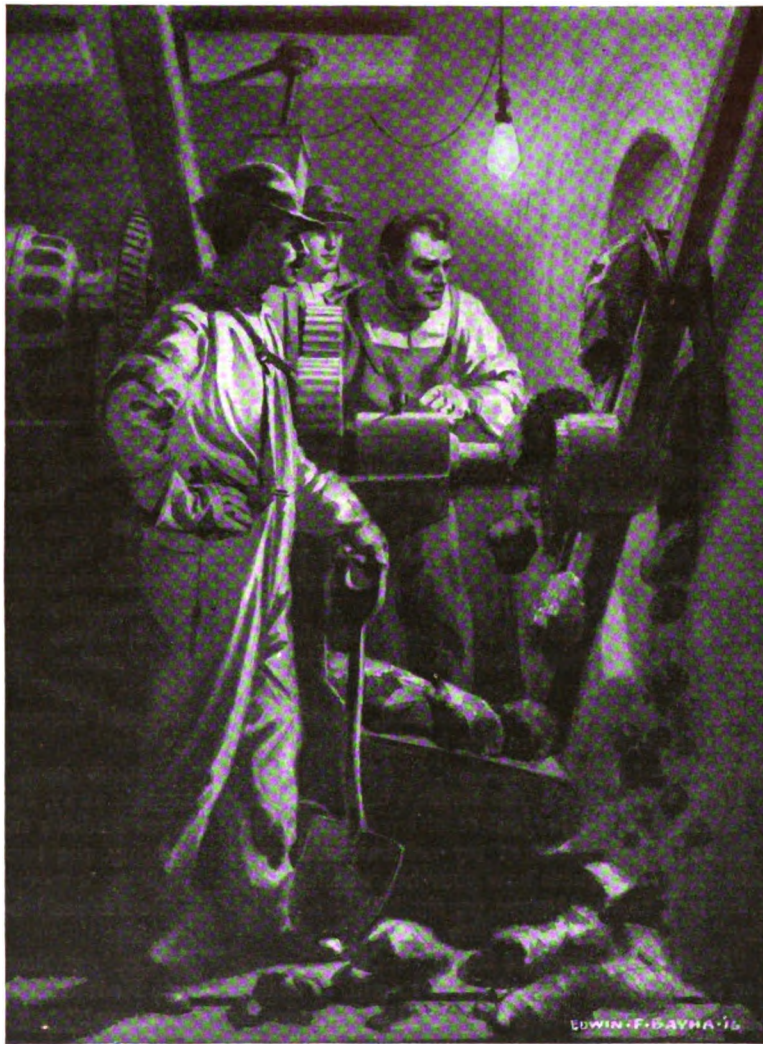
Mr. Palmer led the way to the tunnel heading and showed them the machine. It had an arm that picked up the blocks from the cars that brought them there. This arm could swing the block around to any angle and set it in place against the tunnel wall. Then bolts were passed through it that fastened it to the block previously laid.

"We have something else here that is rather novel," said Mr. Palmer. "I'll warrant you never saw anything like this before. We are going through soft clay. It cuts like cheese, and there is no reason why we should n't bore through it as we would through a block of wood; so we have a giant auger that bores a hole twelve feet in diameter."

Mr. Palmer stopped the machine for a few minutes to explain the mechanism. It was a very simple apparatus. The central horizontal shaft of the machine carried a boring-knife shaped like a plowshare. This cut a conical hole in the end wall or heading of the tunnel, which served as a bearing for the outer end of the shaft. On an arm extending at right angles to the shaft there was a cutting tool. By means of suitable gearing this tool was fed outward along the arm, starting from the center, and, as the arm revolved while the tool moved outward, a spiral shaving of clay was cut from the face of the tunnel heading. The shaving was about six inches wide and six inches deep. The clay was caught by a conveyor that carried it through the concrete-block-laying machine back to the laborers, where it was loaded upon cars and hauled out of the tunnel. Electric motors were used to operate the tunnel-

ing machine, as well as the block-laying machine. After the whole face of the heading had been shaved to a depth of six inches the machine was moved forward by means of jacks.

"What do you do when you strike a boulder?" asked Perry.



THE GIANT AUGER BORING A HOLE TWELVE FEET IN DIAMETER.

"We have to pick the rock out of the way," explained Mr. Palmer, "or we might even have to break it up with a bit of powder; but we don't expect to run across many boulders in this bed of clay."

"I wish there were some way of cutting through rock in the same way," remarked Mr. Barto. "We could make good use of it in New York."

(To be continued.)

RADKA'S COMMENCEMENT

BY MABEL L. ROBINSON

Down the long corridor of the college hall the girls drifted idly toward the little post-office. Classes were over for the day, and in a few moments they would troop down-stairs to the dining-room for their tea. Meantime, the mail was being distributed, and the pigeonholes of the office were rapidly filled with letters bearing strange stamps of every nation. The girls who were to claim them were stamped as clearly as their letters by the races which bore them, and in this leisure hour when no rules held them, each group chattered in its own vernacular, making the corridor a very Babel, familiar enough, however, in this girls' college at Constantinople.

At the far end of the hall two girls had detached themselves from the rest and were standing by an open window hung with purple blossoms of wistaria. Both were looking out into the garden, where the afternoon sun threw long shadows across the golden green of the grass.

"Bulgarian mail should be in to-day," said the younger, leaning out to pull a great yellow-hearted rose over the sill. "Oh, Radka, the wistaria has caught my hair!"

Radka loosed the shining copper tangle, and, taking the rose from Nedejda, thrust it into the soft coils.

"There, that is right," she said, cupping the fine blue-veined chin in her hand. "You should always wear yellow roses."

Nedejda looked up into Radka's brown eyes.

"Radka!" she cried, her sensitive face flushing; "Radka! You speak of my red hair and roses that I may not guess how your heart aches. But I know, I know. Maybe we shall have news to-day," she finished uncertainly.

"Maybe." Radka was staring out into the garden again. "Oh, Nedejda, it is so still, so beautiful here, shut in this garden! How can terrible things be happening over there in the world?" She pointed off over the blue glimpse of the Bosphorus to the hills of Europe.

"But this time it may not be our country, Radka!" cried Nedejda, comfortingly.

Radka's eyes darkened with pain.

"No," she answered slowly; "and if it were, it could take nothing more from me. But come!" She pulled herself up abruptly. "The mail is now open."

At the post-office window eager hands were seizing foreign letters and postals. Nedejda slipped her arm through Radka's as they stood

waiting their turn, and Radka felt its soft pressure. She smiled down into Nedejda's blue eyes.

"Would n't it be nice," she said whimsically, "to go up for your mail once without your knees shaking? Ah, yes!" She drew a sharp breath as they approached the window. "Our box is full."

A Turkish girl turned, spreading open a newspaper covered with queer characters.

"Oh!" she said, laughing over the edge at them. "I could not run into one of you without knocking down both. Always it is so!" And she made room for them at the window.

With hands which shook a little, Radka sorted over the handful of letters, long official envelopes for Nedejda, who thrust them with a wry face into her book and watched eagerly for Radka's home letter. Nedejda's lawyers who managed her estates bored her often with long envelopes, but, except as she shared Radka's mail, she never had known home letters. Her guardians had been puzzled for a good many years to know what to do with the lonely little orphan, and as soon as she was old enough, they were glad to shift their responsibility to the college in Constantinople which harbored and made women of girls of every nation. Here Nedejda had found Radka, strong, splendid Radka, who, battling with poverty and sorrow, still found strength and spirit for her.

Seniors now, with commencement only two months away, for the first time since junior year, when Radka's father and brother had been killed fighting, the two girls dared dream of finishing their work together.

Radka read her letter and folded it into its envelop.

"Let's go down to tea now," she said, smiling into Nedejda's anxious eyes. "I'll read it to you afterward."

Nedejda's heart gave a thump, but she thought forlornly that the tea would be good for Radka anyway, and, turning, joined the crowd which was streaming down-stairs to the dining-room.

The room was full of girls filling cups at the big brass samovar, getting their own little jars of sweets which they kept for tea, grouping about the platters of bread and butter. Nedejda ran to her shelf and brought out her rose-leaf jam and syrupy figs, which, to her delight, Radka was willing to share with her. She found it very hard to keep her riches to herself when she wanted above everything to relieve Radka's poverty. But

little by little she had grown to understand Radka's pride, and to value more than her wealth the things of the spirit which they had for each other.

A group of seniors about a small table hailed

you, as president of student government, should talk it over with President Dane."

"Very well," said Radka, a little absently; "I'll see her after tea."

"Any one would think," scoffed a little English



"THE DOOR FLEW OPEN." (SEE NEXT PAGE.)

them, and they were drawn at once into an eager discussion of the possibilities of wearing caps and gowns during the spring instead of at commencement only.

"Radka," said one girl, "it seems to me that

girl, "that talking things over with the president was like reasoning with your favorite child! Don't you even feel shaky?"

"She 's reasonable," Radka pushed back her chair, "and we are n't talking about me."

"Good luck!" "Bon voyage!" "Mashallah!" A chorus of good wishes followed her as she and Nedejda left the dining-room.

Radka smiled a little palely as they climbed the stairs.

"This time I do feel shaky," she said, "and we are going to talk about me."

Nedejda's fingers caught Radka's. "What is it?" she implored. "Please tell me quickly now you 've had your tea."

Radka laughed. "I will, now you 've had yours."

She drew Nedejda through the open door out into the quiet and perfume of the garden, which, even in April, flowered in heavy sweetness. Looking around at its loveliness, she drew a deep breath.

"I 've got to go, Nedejda," her voice was a little unsteady; "I can get the Varna boat to-morrow night."

The color drained out of Nedejda's face, but she stood silent, waiting for the rest.

"It 's the farm." Radka was not looking at her. "Up there in the mountains it 's just time to plant, and there is no one to do it. Mother hoped she could manage, but Grandmother is ill now, and she has to be with her all the time. Nevenka is too little to help much."

She turned and caught Nedejda's stricken face in her hands.

"Oh, Nedejda," she cried passionately, "I can't! I can't! When commencement is so near!"

Nedejda drew herself up sharply. "You shall not go!" She pulled Radka down on a bench beside her. "I will send money to hire a man. You can pay me when you begin to teach," she added quickly.

Radka shook her head. "Mother has even offered to share the farm with any man who will help her, but there are no men, Nedejda. The war took them last year, and those who are left must plant for their own families. We shall starve without our farm."

She stared silently at the gay groups of girls collecting for afternoon sports.

"You see, Nedejda," she said at last, her voice flat and hopeless, "I must go." She rose. "I will see President Dane at once."

Nedejda sat still, huddled against the bench as she watched Radka cross the campus.

"Come on," called one of the girls to her, "doubles in tennis!"

Nedejda shook her head and started up. If Radka could do this thing, she thought, as she went to the solitude of her room, she could at least help her to face it.

An hour later Radka joined her.

"It is all settled," she said quietly. "Would you like to help me pack?"

Late the next afternoon, Radka drove up to the quay, her little trunk strapped to the carriage. Through the confusion and pain of the twenty-four hours she had come worn and dazed to the final break with everything which had spelled to her the fulfilment of her youth. For years her father had struggled to hoard enough from the little farm to send Radka to college. How many winter evenings they had sat about the fire and planned her future! How cheerfully they had all sacrificed and toiled for their goal! Radka had made herself accept the loving help, knowing how much she could do for them when once she began to teach. And now the war had taken both the dear gentle father and his strong son. Radka and her mother had felt that a high injunction had been placed on them to carry out the plans, but the struggle had been useless, after all.

Directing the college servant where to place her bags, Radka hung her hat and coat on a nail in her state-room. Then closing the door behind him, she deliberately pulled the blind that she might not see the beautiful city she was leaving. She stood a moment, alone at last after the hours crowded with those who loved her. With a little cry she flung herself face down into her berth. "I can't be brave any longer!" she sobbed; "I can't be brave any longer!" Her brain, misted and wearied by pain, yielded as the relaxed body grew quieter, and just as the boat steamed past the towers of her college she slept.

THREE days later, Radka toiled up the mountain beside the rickety wagon which carried her trunk. On the other side walked a small boy of ten who had assumed a man's airs with his responsibilities, and paid little attention to Radka's anxious questions. The mountain looked bare and deserted. A few farms had been roughened up by plows, but most of them stood untouched. Prosperity had fled the country-side, and Radka looked about sorrowfully at the deserted homes.

"But I 'll keep mine," she said sturdily; "I 'm glad I know how to make things grow."

The climb seemed endless.

"Still another mile!" she panted. "I must get used to these hills again."

At the head of the road around which Radka could see the house, her weariness suddenly left her, and she broke into a run, calling, "Mother, Mother, Mother!"

The door flew open, and in a moment Radka was in her mother's arms. Little Nevenka ran around and around the room in a frenzy of delight, and from an inner bedroom Radka heard

her grandmother's voice crackling impatiently. Radka's home and its needs had claimed her.

Two months later she stood by the fence, reading a letter which a passing herdboy had brought her. Tanned and strong, she stood in the sunshine, her erect head wound about, Bulgarian-

her, explaining her letter as her fingers flew. Nedejda's guardians had allowed her to stop over with Radka on her way home from college. She could stay as long as she liked, provided—"The old darling," interjected Radka—provided she might pay her board.

"Maybe, Mother," Radka stopped a moment in



"OPEN IT! OH, RADKA, RADKA!" (SEE NEXT PAGE.)

wise, with its heavy braids. Suddenly she looked up, her brown eyes shining.

"Why, it's this very day!" she cried excitedly. "It's now!"

She ran to the house. "Mother, Mother!" she called; "Nedejda is coming! To-day! Now! The letter just came! Help me quickly!" And she pulled at the rough smock, trying to get it over her head.

Her bare arms and shoulders, round and strong, emerged, and she fastened herself rapidly into the dress with its bands of beautiful Bulgarian embroidery which her grandmother had made

ecstatic anticipation, '*perhaps* she can stay all summer!"

"Poor little girl," said her mother, patting the ruffled braids, "it has been lonely."

Radka laughed back at her mother as she flung open the door.

"Not any more!" she cried; "too busy! Come on, Nevenka, we'll run down to the bend of the road where we can see her coming!"

It was a clear, blue, mountain day, and away down the crooked road which wound its way toward them they could see a crawling black speck appear and disappear.

"Nedejda!" breathed Radka. "I can't wait here two hours. It is too far for you to walk, Nervenka, but you may make some *banitza* [Bulgarian cake] for supper while I am gone. Tell Mother we'll be home about six."

The child turned and trotted back obediently as Radka started down the slope with her long, swinging stride.

Only a few miles between her and Nedejda after all these weeks! Her swift eagerness drove her over them untiringly. One mile, two, she could no longer catch glimpses of the road ahead; there was no sound of wheels. A sharp turn, and she stopped. In the middle of the road stood the old wagon, while the horse wheezed in asthmatic rest, and his small driver leaned stoically against a tree.

On the seat, her shoulders drooping wearily, her face pale under the bright copper of her hair, sat Nedejda. Her eyes were closed, but, roused by a grunt from the boy, she opened them slowly, preparing to climb down for another pull. At Radka's soft, inarticulate cry, she looked up, and then, silently, swiftly, she came to her.

THE June twilight was clear and cool in the garden as the two girls walked together through its green freshness. Nedejda drew long breaths of the mountain air.

"To think that I was ever tired or sad," she said happily.

Radka drew her protectingly into the curve of her arm.

"But you have come a long way," she said, "and I shall make you go to bed, now that you have seen my farm and my garden."

"How did you ever do it, Radka?" cried Nedejda. "The farm like this!" She waved her hand over the rich promise of the acres. "And the family—" She sighed. "Oh, I wish I could mean as much to anybody as you do to them."

Radka laughed.

"Stay here a month and you will," she said. "But, Nedejda—" Her voice changed. "You see now why I could do no better on the work you sent me. I don't want to be ungrateful, but oh,

Nedejda, I wanted my degree! I wanted to teach! Year after year I must go on planting now—" She stopped abruptly and straightened herself with the old fighting spirit Nedejda knew so well. "Come, it is dark. We'll go in now."

As the lamplight from the door fell on Nedejda's face, she drew back. It was riotously glowing, and her eyes were like blue lamps themselves. When had Nedejda's sympathy failed her before?

"Radka, come quickly!"

Nedejda's voice broke, and in silence she dragged Radka up the stairs into her room, threw open her trunk, and from the tray drew a long, narrow roll.

"Open it! Oh, Radka, Radka!"

Nedejda was sobbing now, and Radka, puzzled and frightened, unrolled a heavy, yellowish sheet. Then she sank down on the bed, trembling.

"Why, Nedejda," she faltered. "My name is here, Radka Raicoff; *my* name, and it is a sheep-skin."

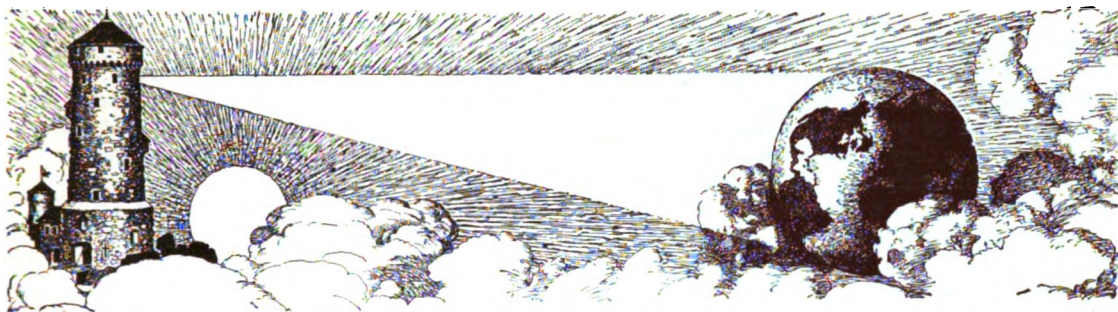
"Well, why not?" Nedejda emerged from her handkerchief damp and radiant. "You see, it happens to be yours, sent by the faculty of the college with much respectful admiration. I consented to be their messenger since the mails are so insecure. Oh, Radka!" She flung herself down beside the bed and seized the shaking fingers. "There was n't a girl in the class they were so proud to bestow an A.B. on, and there was n't a name had so much applause as yours when you were presented your degree *in absentia*. I'm going right down-stairs to tell your mother all about it, and you'd better come too and bring the precious thing." At the head of the stairs she paused. "You can teach any time you wish now, of course," she said, as Radka followed her in dazed ecstasy. "President Dane says she has an eye on you, and you know what that means. And she said, too, 'You are to tell Radka that I send my heartiest congratulations to her on her commencement.'"

"My commencement!" whispered Radka, as she followed Nedejda down the stairs to the little sitting-room.

NOT ONE

WHAT pretty names the blossoms bear—
 "Love-in-a-mist," and "Heart's-ease" fair;
 There's "Mourning-Bride," and "Bridal Rose,"
 But not a single *groom* that grows!

Mabel Livingston Frank.



THE WATCH TOWER

BY S. E. FORMAN

Author of "Advanced Civics," "A History of the United States," etc.

PROGRESS OF THE ARMY BILL

OUR troubles in Mexico and with Germany have caused Congress to move along faster with its plans for increasing the army. When the Hay Bill (see *THE WATCH TOWER* for May) reached the Senate, that body was in a mood for a much larger army than was provided for by the House. So the Senate opposed the Hay Bill and promptly passed an army bill of its own. This was the Chamberlain Army-reorganization Bill, the measure taking its name from Senator Chamberlain, who is the chairman of the Senate Committee on Military Affairs. The Chamberlain measure, as it passed the Senate, provided for a regular army of 250,000 men, and for an additional Federal reserve force of volunteers, consisting of 260,000 men, resembling the Continental Army which was proposed by Secretary Garrison before he resigned from the cabinet. The Chamberlain Bill also made provision for the military training of boys and young men in schools and colleges. It provided that one or more officers of the regular army should be assigned as teachers of military tactics to any school or college having one hundred or more boys fifteen years of age or older, providing the school authorities should make the request and enough boys agree to take the training.

Since the Chamberlain Bill contained features which did not appear in the Hay Bill, it was necessary to send the Army Bill which was passed by the Senate to a joint committee consisting of three members of the House and four members of the Senate. The members of such a committee are known as "conferees," and they are said to meet in "conference." It is in conference that much of the important work of Congress is done, for it is there that many points in dispute between the House and Senate are settled. Every particu-

lar change, however, made in a bill by the conferees, must be agreed to by both the House and the Senate before the bill becomes an act of Congress. For example: if in the conference on the Army Bill it shall be agreed that the regular army shall consist of 200,000 men, instead of 140,000 as proposed by the Hay Bill, or 250,000 as proposed by the Chamberlain Bill, then both the House and the Senate will have to vote upon the compromise; and if the vote in either branch shall be against the compromise, the bill will be lost, and the work done in conference will count for nothing. If there is a deadlock in conference, that is, if the conferees can agree upon nothing, they report their disagreement to their respective branches of Congress and ask for further instructions. In the early days of May it was thought by many that this was what would happen in the case of the Chamberlain Bill. "We are hopelessly apart," said one of the members of the conference, "on the size of the regular army and on the proposals for a volunteer reserve army." Still, there were signs that even if the conferees did not reach an agreement, both branches would take the matter up anew and speedily pass a preparedness measure that would meet the needs of the country.

ARE WE TO STAY IN MEXICO OR COME OUT?

For nearly six weeks the chase after Villa was like hunting for a needle in a haystack. The farther our troops pushed into Mexico, the farther away they seemed to be from the capture of the bandit. After our soldiers were attacked at Parral by the Mexicans and two of our men killed, the pursuit of Villa became less vigorous, and soon the expedition came almost to a standstill. For there was danger that bad faith on

the part of the Mexicans would lead to war, and it was not to wage a war that our troops were sent across the border. They were sent for the single purpose of punishing Villa and his band for the outrages they had committed upon American soil. This purpose, in the opinion of the Mexican authorities, was accomplished when the Villista bands were broken up. Accordingly, in the last days of April, Carranza began to ask for the withdrawal of the Americans, on the ground that his government was able to cope with the situation. Here was a difficult and delicate problem for President Wilson to solve. If our soldiers should return without Villa, the bandits might think that we had backed down and that it would be safe for them to cross the border again and kill more Americans. This would almost certainly happen if Carranza should be unable to prevent the raids. If, on the other hand, our troops should remain in Mexico for any considerable length of time, their presence would grow more and more offensive to the natives, and incidents like the Parral affair would become more and more frequent. So the question whether we should come out of Mexico or stay in was not an easy one to answer. If our Government could have been assured that Carranza was without doubt able to deal with the bandits, the troops could have been safely withdrawn. But there was no way in which such assurance could be given.

THE TROUBLES OF CHINA

ALMOST every large nation in the world is in a condition of ferment or war. Even China is having her share of troubles. Already nearly one half the people of this peace-loving country are in revolt against the established authority. The turmoil in China is over the form of government. Some of the people want a monarchy, while others want a republic. Four years ago, monarchy was overthrown in China and a republic was established. Yuan Shih-Kai was elected as the president of the republic. The term for which he was chosen was five years, but last September he announced that the office of president was to be made permanent and hereditary. This meant, of course, that the republican form of government was to be abandoned and that China was to become a monarchy again. Yuan Shih-Kai was planning to be crowned as emperor at an early date, but he has found the opposition to his plan stronger than he suspected. In December the people of the southern provinces began to revolt and declare for the continuance of the republic. In some cases the regular soldiers of the Chinese

army have joined the ranks of the republic, and at Canton five war-ships have gone over to the revolutionists. Recently, Yuan Shih-Kai gave up his plan for becoming emperor and resumed the title of president. But this failed to put an end to the revolution, for the republicans of southern China seem to have lost confidence in Yuan Shih-Kai and are demanding his overthrow. At the end of April, nine of the eighteen provinces had declared their independence and the revolution seemed to be spreading.

If this movement for republican government



Courtesy of "The Independent."

THE SPREAD OF THE CHINESE REVOLUTION.

The shaded provinces are demanding the overthrow of Yuan Shih-Kai.

in China shall in the end be successful, it will be the greatest triumph for democracy and self-government in all the history of politics, for China is the most populous country on the globe. It is difficult to believe that the movement will succeed within any short period of time. The Chinese are the most conservative people in the world. They love the things they have, and they are very slow to make changes in their way of living. Chinese children are taught that their first and highest duty is to tread "in the footsteps of the fathers." Inasmuch as past generations for thousands of years have been supporting monarchy as a divine institution, it is hardly likely that the present generation will suddenly depart from the ways of their ancestors. The Chinese republic may be continued, but for a long time it can hardly be more than a republic in name.

GIVING THEIR VACATION TO THEIR COUNTRY

TRAINING camps for college and high-school students came into existence before the breaking out of the Great War, the first one having been held on the field of Gettysburg in the summer of 1913. As the war progressed, interest in military matters on this side of the ocean naturally grew stronger, and the number of training camps increased. Last summer there was held at Plattsburg, New York, a camp at which about 1800 business and professional men received instruction in the art of war, the instructors being officers of the regular army of the United States. The men who attended this camp came from nearly every walk of life. Statesmen, famous lawyers, celebrated authors, great bankers, rich mer-

for a better performance of their duties as American citizens. One of the duties of every citizen is to assist in defending the country in case of need, and the men who went to Plattsburg went there in order to learn some of the things that a soldier must know if he is to be of any use in time of war. "They enrolled," said Richard



BATTALION ARRIVING AT PLATTSBURG AFTER A LONG MARCH.



GENERAL VIEW OF THE CAMP AT PLATTSBURG.

chants stood elbow to elbow in the ranks with men who labored for a daily wage. For four weeks the campers practised with the rifle, drilled, marched long distances with heavy packs on their backs, studied military tactics, and lived the hard and simple life of the soldier, sleeping on uncomfortable cots, rising early and eating plain food. Why did these men give up a vacation of pleasure—as most of them did—and subject themselves to the hardships of military life? They joined the camp in order to fit themselves

Harding Davis, who attended the camp and gave to his country what proved to be his last vacation,—“they enrolled not because they are crazy for war, but to prepare against war, to assist our Government in preparing against it.”

The “Plattsburg idea” in a very short time has exerted a wonderful influence. Where hundreds enrolled in training camps last year, thousands have enrolled this year. It is estimated that in the summer of 1916 at least 30,000 men will spend their vacations at

military training camps located in different parts of the country. Boys as well as men are joining in the movement. Many under the age of eighteen have applied for enrollment at Plattsburg, but have been rejected because at the regular camps only men between the ages of eighteen and forty-five are received. Yet the patriotic desire of the boys has not been ignored, for arrangements are being made for holding camps at which boys between the ages of fifteen and eighteen may be trained by officers of the regular

army. These camps for boys will be conducted after the manner of the Plattsburg camp, but the tasks will not be so heavy nor the hardships so severe. At one of these "sub-junior" camps, as they are called, nearly a thousand boys will spend their vacations in preparing themselves for war, if war should come.

GERMANY AND HER SUBMARINES

WHEN the German Government last September promised President Wilson that she would cease to use her submarines against merchantmen unless warning was first given, the American people hoped that we should have no further trouble with Germany. But they have been disappointed, for Germany did not change her methods of warfare upon merchant shipping. German submarines continued to attack freight- and passenger-boats and sink them without warning and without giving passengers and crews a chance to save their lives. These attacks were made not only upon vessels belonging to Germany's enemies, but upon vessels of neutral ownership. In some cases, neutral vessels bound from one neutral port to another were destroyed. And the destruction caused by the submarines increased month by month. In February, fifty vessels were destroyed, five of which were neutral. In March and in the first week of April more than eighty were lost, and about thirty of these were neutral. All this was not only contrary to the assurances which Germany gave, but it was also contrary to international law; for one of the rules of the law of nations is that belligerent vessels must not sink a merchant ship, even if it belongs to an enemy, without first giving warning.

In April, President Wilson decided that it was time to give Germany notice that she must either obey the law of nations or suffer the penalty of disobeying it. So he sent a note to the German Government telling it that, if it did not change its methods of submarine warfare, the United States would have nothing further to do with it. His exact words were: "Unless the Imperial Government shall now immediately declare and effect an abandonment of its present methods of submarine warfare against passenger- and freight-carrying vessels, the Government of the United States can have no choice but to sever diplomatic relations with the German Empire altogether." Observe that President Wilson said that Germany must "declare and effect" the abandonment of its methods. That is to say, she must *perform* as well as *promise*. If she does not do both, then the bonds of friendship which have long held the two governments together will be

broken. Ambassador Gerard will be called home from Berlin, Ambassador von Bernstorff will leave Washington, and Germany and the United States for a time will be strangers.

But in the early days of May, it began to look as if none of these things would happen, for on the fifth of the month a reply to the President's note was received, stating that the German Government had issued an order that no more merchant vessels should be sunk without warning and without the saving of human lives. It was quite generally thought that the effect of the reply would be to postpone the threatened break and perhaps avert it entirely.

The President's reply to the German note, published on the morning of May 9, accepts the promise of the German Government to abandon the submarine policy against which we have protested, but without conditions as to our relations with any other country. The message concluded with the words, "Responsibility in such matters is single, not joint; absolute, not relative."

RUSSIA AND THE GREAT WAR

For several months past, the world has been watching with keen interest the part which Russia is playing in the Great War, and has been wondering what the outcome of her bold and striking movements will be. While the troops of the czar have been holding the Teutons at bay in Poland and Hungary, they have at the same time been pushing southward far into the heart of the Turkish Empire in Asia. In April they captured Trebizond, an important Turkish stronghold on the Black Sea. The possession of Trebizond will make it easy to send supplies direct to Asia Minor, where the troops of the grand duke are operating with the hope of reaching Constantinople by the back door. Unless all signs should fail, this hope will be realized, and Russia will win the prize for which the Great War is being fought—Constantinople. (See THE WATCH TOWER for November, 1915.) Also, there is every indication that the Russian bear before very long will have his paws firmly planted in the soil of a large portion of western Asia. When the time comes for agreeing upon terms of peace, will Russia be willing to release this conquered territory? Or will she claim it as her own and add it to her already overgrown empire?

Besides spreading her power over Asia Minor and holding the Teutons in check on the eastern front, Russia is sending troops to help the Allies on the western front. For in April the news came that a flotilla of transport ships, carrying Russian soldiers, had landed at Marseilles. From now on,



THE "OLYMPIAN" EXPRESS, DRAWN BY ELECTRICITY, CROSSING THE CONTINENTAL DIVIDE.

therefore, Russian soldiers will be fighting by the side of the French, helping them to defend their native land. The appearance of the Russians in France is regarded as one of the first fruits of the program of concerted action which was agreed upon at the great council of war recently held in Paris. The combination of Russian and French forces on the western front may prove to be an event of great significance, for Russia has millions of good fighting men to spare. She lacks money and arms and equipment, to be sure, but these can be supplied by England and France.

WILL THE STEAM LOCOMOTIVE DISAPPEAR?

IN the far Northwest one of our great railroads, the Chicago, Milwaukee, and St. Paul, is making an experiment which, if it proves to be successful, may in time lead to a complete change in our system of hauling trains. This company has done away with the steam locomotive along more than two hundred miles of its tracks, and is drawing its trains by means of electric motors, just as trolley-cars are drawn. The part of the road which has been electrified lies in Montana and Idaho and crosses three of the principal ranges of the Rockies. As the electric train thunders along, it passes through tunnels, crosses rivers, and climbs steep and difficult grades. The experiment, therefore, is being made in a region where conditions of traffic are by no means easy.

The electric power for drawing the trains is obtained from mountain waterfalls along the route, instead of from coal. Here is the chief advantage of the electric system. By using the force of falling water to generate the electric current a vast amount of fuel is saved. If the power of the countless waterfalls in the mountainous regions of the far West were used for drawing trains, millions of tons of coal would be saved every year. But the saving of fuel is only one of the advantages which the electric locomotive has over the steam locomotive. The electric locomotive is smokeless, noiseless, and dirtless; it has no ashes to be dumped, no flues to be cleaned, no boilers to be inspected; it uses neither coal nor water; it has a tractive, or pulling, power much greater than the steam locomotive, and can therefore draw heavier loads. A most valuable and remarkable feature of the electric locomotive is that, as it goes down a grade, it can convert into electricity the power given to the train by gravity, and can turn this self-produced electrical current into the trolley-wire to assist other trains. That is to say, as a train drawn by an electric locomotive moves *down* a slope, it at the same time helps to pull another train at another point on the road *up* a slope. If all the advantages which are claimed for the electric locomotive are real and lasting, it would seem that the doom of the steam locomotive has been sounded and that the day may not be far distant when it will disappear as a means of transportation.

HOW TO COOK IN CAMP

BY PETER JOHNSON

To be a good camper you must be a good cook. You can tell the greenhorn at camping five minutes after he has begun to cook, and you can also tell the experienced camper the moment he begins to prepare a meal, there is such a great difference in their methods.

But the greatest difference is in their results. Without experience, the camp cook will serve up overdone and underdone foods, soggy or cinder-like potatoes, ashes in your coffee, sticks in your chowder, and almost everything else as it should not be served. Worst of all, you will not get a good variety. The camper who understands the gentle art of cooking out of doors will serve meals that will cling to your memory for all time. A little study and thought, and just a bit of advice at the start, will enable you to become an expert at cooking for the camp. And inasmuch as campers acquire such wonderful appetites that they "live to eat," this is all-important.

Your fire is of first importance. Never cook in a flame, because flames will cover broiled foods with soot and do not have sufficient heat thoroughly to cook a fish, for instance, clear through without burning the outside to a cinder. Always use hard wood for the fire, and cook over a deep bed of coals. This means cleanliness, quick and thorough cooking, absence of smoke in the eyes, and of sparks, cinders, and soot in the food.

There are so many canned things to-day of the best quality that the camper's table was never better provided for. Substitutes for lard and other cooking fats and for shortening now come in tins, and are easily handled and preserved. Instead of the thick, sweet condensed milk which so many people dislike, we have the evaporated milk, as thick as cream, as good as cream, and better still, it can be diluted and used in chowders and other foods just the same as milk. We can take vegetables, beans, clams, and practically everything along with us in cans to-day, and these keep indefinitely.

CAMPERS' CHOWDER

NOTHING, to my way of thinking, has ever rivaled the chowder that can be made in camp. I call it "campers' chowder." It may be made with fresh-water clams, salt-water clams, tinned clams, or fresh fish. Personally, I prefer fresh fish; and of all the fresh fish I find the horned pout, or catfish, the best suited for this chowder. Next are the sea fish—cod, halibut, or any of them. I

have dived in ten feet of clear New England lake water and brought forth quantities of those dark-shelled clams, something like mussels. These make a splendid chowder.

To make this chowder for four people, cut a quarter of a pound of salt pork into tiny bits no larger than French peas. Put them in the bottom of a big kettle and cover it, awaiting the preparation of the remainder of the ingredients. Counting two large potatoes to each person, peel and slice the potatoes into wedge-shaped pieces, one edge being as thin as paper, the other edge a quarter of an inch thick. You should know the reason for this or you will not understand. The thin edge boils up and serves to thicken the chowder. Peel and slice one medium-sized onion for each portion. Dress your fish, remove the backbones, and cut each into four chunks. Now put your kettle over a glowing bed of coals and fry the pork until it is crisp and brown; remove the kettle and place in it a layer of onions, a layer of potatoes, a few chunks of fish, and repeat this until all the fish and vegetables are in the kettle. Pour over this two quarts of cold water, put the kettle back on the fire, and boil rapidly until the potatoes are done. You can tell this by removing a piece and testing it.

Now add one quart of milk. This may be made from one large can of evaporated milk with enough water to make up the quart. Salt the mixture before adding the milk; then sprinkle in sufficient pepper and let it all come to a vigorous boil; but do not let it boil more than two or three minutes. Have the table ready, with the big pint cups for "soup-plates," ladle out the chowder, and "go to it!"

BREADS

BREAD and biscuits may be baked by placing the dough in a greased pan, inverting another pan over it, and burying the two in the hot embers, being sure not only to have the coals beneath them, but to heap them on top as well, in order that the baking may be uniform and the top properly browned. A folding reflector may be bought at small cost, which is even better for bread-making. It is placed in front of the fire and the bread put upon a shelf at its center; the upper portion reflects the heat downward and will brown bread or biscuits. Whichever device you use, it will prepare delicious food according to any of the following recipes.

For corn-bread, mix one quart of cornmeal, one teaspoonful of salt, and one teaspoonful of baking-powder with enough cold water to form a thin batter, stir it well and bake. This is the old-time Southern hoe-cake, and is good with syrup or butter, either hot or cold.

For biscuits, mix two pints of flour, two teaspoonfuls of baking-powder, and one of salt, and rub in a piece of butter or of pork-fat the size of an egg. Then add enough milk to make a thin dough. Roll out to a convenient thickness, cut into circles with the top of a baking-powder tin, and bake; they may be served hot or cold, or are fine with stews or fricassees.

Bread is made in the same manner, except that the dough should be thinned to form a batter which will just pour, and it is baked in deeper tins. Save all stale bread and biscuits; they may be toasted or fried, or the crumbs used in your other cookery.

HILLSIDE BEANS

IF ever you have dragged forth a big brown bean-pot from a red-hot hole in the side of a hill and removed the lid and got just one whiff of those baked beans, the aroma will stick in your memory forever. While it is true that this demands a lot of work, it is worth while just for the pleasure of anticipation and then the realization. Canned beans are always good, especially for an emergency dinner, and I always take them with me, but for a little extra pleasure I always bake beans in a hillside oven at least once on every camping trip.

Put the beans to soak in water over night. Dig a hole in the side of a hill about two and a half feet in diameter and three feet into the hill. Build a fire of hard wood at the edge of the hole, and then constantly push back the live coals into the hole and add more wood, banking the outer edge with big round stones which will retain the heat. When the hole is well bedded with coals, add a piece of pork and a pinch of mustard and salt to the beans in the pot, and fill with warm water. Fasten the cover on with a bit of wire, and set the bean-pot in the hole on the coals. Push the other coals up around it and over it. Then cover the opening with boards. Let the bean-pot remain there at least six hours, and your beans will be done.

"KING FLAPJACK"

Hot flapjacks in camp make an ideal breakfast. There are good tinned syrups to go on them or jars of honey. With only butter they are also good. It is not difficult to make them, once you understand the trick. These and pancakes are

cooked as they are at home, except that in camp, where you have fewer utensils, you use a frying-pan instead of a griddle.

To make flapjacks, use two pints of flour, two teaspoonfuls of baking-powder, one teaspoonful of salt, one egg, and sufficient milk to make a batter which will pour easily. If cold boiled potatoes, well mashed, are substituted for part of the flour, you have potato pancakes; if either rice or cornmeal is cooked and substituted in the same manner, your cakes will have the nature of the added ingredient.

All pancakes should be baked in a well-greased frying-pan over a hot fire.

FISH

BECAUSE the majority of camps are located near the water and the majority of campers go as much for the fishing as for the camping, fish forms the staple meat-food in most camps. Because there are so many varieties of fish, it is impossible to lay down specific rules for cooking each kind, but what holds good for baking one sort holds good for nearly every other variety, and the same with frying, broiling, etc.

Small fish should never be split open or the backbones removed for broiling or any other form of cooking, except chowder, as they are likely to fall apart. Large fish should have the backbones removed, and very large fish may be cut up—sea fish.

Scrape the scaleless fish, such as brook-trout, with a knife, wash with salt water, and dress as you would any fish. Never skin trout. Bass should be scaled for boiling or baking, and skinned for broiling. Always skin catfish.

An excellent way to cook trout, perch, and small bass and pickerel is to scale or skin them as directed, roll in cornmeal in which a teaspoonful of salt has been well mixed, and fry in bacon-fat over coals. Very small fish may be thus prepared and dropped in a kettle of hot fat.

Here is a novel way to cook fish, and the results are worth all the trouble. After cleaning, cover your fish with green leaves that you have first washed. Cover these with wet paper—old newspapers will serve if the fish is well covered with the clean leaves. Several thicknesses of the wet paper should be wrapped around these fish, each fish wrapped separately. Thrust these into a hot bed of hard-wood coals, and allow them to remain there until the wet paper dries and begins to burn. As soon as it begins to burn draw out your fish, remove the paper, and lay leaves and all on your plate. With a fork remove the leaves, and your fish will be thoroughly cooked, pure white, steaming hot, and so tender that it

will almost fall off your fork. Add a bit of butter, salt, pepper, and eat while hot. This method may be used for fish weighing as much as six pounds. It beats boiling or even baking.

If you have a particularly big fat pickerel or bass, you may skin and cut it in thick slices, crosswise of the fish. Leave the backbone in to hold the slices together, which should be about two inches thick, dip them in cornmeal and fry slowly, that they may be cooked through. Serve two such slices, with a crisp slice of bacon on each, and a mammoth baked potato, and you have a wonderful meal.

Here 's an ideal way to cook brook-trout. Clean the fish and remove the eyes and heavy back fin, wash, and wipe dry. Cut a long, green oak twig, or fasten a metal skewer to the end of a green stick. Now take a long, thin slice of bacon and wrap it spirally around the little trout, push the green stick or skewer through the fish in two places, so as to hold the bacon on, and broil over the hot coals. The bacon-fat dripping over the fish keeps it from burning and at the same time adds to the flavor.

To bake, place the fish, after it is thoroughly cleansed, in a pan, dredge it with a mixture of flour, salt, and pepper, add water, cover it with another pan and place it on the coals. See that there is enough liquid in the pan to prevent burning.

Save your cooked potatoes and bread-crusts and stale bread. Also save cooked fish. Remove the bones, shred, and mix with the stale bread-crumbs and potatoes, form into little cakes and fry them in the pan with bacon-fat or any good frying compound.

If you catch fish in the morning and do not wish to cook them until night, or vice versa, keep the fish fresh by first dressing them, then put them into an enameled pail and cover them with water; add a little salt, and set in a cool place with a wet cloth over the pail. Never keep fish in camp, even with this care, more than twelve hours.

FROGS' LEGS

FROGS' legs are considered a delicacy anywhere. In camp they add to the variety because, while they take the place of meat, there is nothing "fishy" about their flavor. Cut off the legs just above the saddle, cut off the feet, skin the legs, and wash them thoroughly. The meat will be milk-white. If not, do not eat them.

They may be rolled in bread-crumbs and a beaten egg, or in cornmeal, and fried in a pan. The most appetizing way I have found is *en brochette*—much easier to do than the name im-

plies. It needs a long iron or steel rod, or a long straight piece of telephone wire thoroughly cleaned will serve, or even a long smooth green stick, although the stick is liable to burn through and drop your delicacy into the coals. Prepare slices of bacon about two inches square. Put a leg on the skewer, then a slice of bacon, then a leg, and so on, alternately, and hold over hot, glowing coals, turning slowly until done. With a steel fork push them off on your plate. Have enough skewers so that each camper may cook his own portion, or have it cooked for him, at the same time.

MEATS

Not much meat, aside from a little game and the meat in cans, is used in camp, yet it is as easily cooked as fish. In fact, wood coals seem to add to the flavor of broiled meats.

Suppose you have a roast of pork. Do not be alarmed lest you cannot cook it. Place it in a baking tin, cover with another, and cook it just as you would cook the beans in the hillside oven which I have previously described. Pork cooked in this manner is delicious.

Steaks are best cooked in a double broiler, and if slices of onion are placed over both sides of the steak as it is pinched up in the broiler, together with a couple of narrow strips of bacon, the flavor will be delicious.

In roasting meats in camp remember that, as there is greater evaporation, they need to be watched more closely and water added frequently to keep them from burning.

Sausages are always good and easily cooked. Try broiling one on a stick until the outside is quite crisp, then nibble it as soon as you can do so without burning your mouth.

GENERAL HINTS FOR CAMP COOKERY

BREAD is quite as useful and necessary in camp as at home. In fact, there are more ways to use it in camp, and you can generally get plenty at the nearest farm-house.

Whenever you have been using the frying-pan, save the fat, lay in a few slices of bread, and fry them. It will be a sort of combination fried toast. Remember that your outdoor life enables you to consume double the amount of fat you could do if you were at home and shut up in school or office much of the time.

Potatoes may be boiled. If you cook them in this way, the first step after they are done is to pour off the water and fan them with the kettle-cover. This makes them mealy, otherwise they become soggy. But who cares for boiled potatoes when you can thrust them into the coals with

their khaki jackets on and drag them forth all hot and mealy and baked to perfection?

Try cooking eggs by the method that I described for cooking brook-trout—by wrapping in leaves and wet paper; only with eggs you have

always take along evaporated milk, and this, with one part of water, is just right. Take only such cereals as may be cooked in five or ten minutes. You cannot bother to cook them overnight. Follow the directions for cooking them that you will

find on the packages in which cereals are usually sold nowadays. For oatmeal allow one cupful of the meal for four persons. Best of all, however, is the method of making up in the evening a big pot of oatmeal, or any of those cereals which need to be cooked in hot water. In the morning it will be cold and solid. Take it out of the kettle, slice, and fry in your frying-pan with bacon-fat. Have some canned syrup to pour over this, and you will have something decidedly good; at the same time it is nourishing and easily digested.

Sweet corn roasted over the coals after dark on a green stick sharpened at one end, each camper roasting his own corn, is a great treat. Sit about the fire and roast the corn, have the salt-shaker handy and a dish of butter. Then lean back and eat your corn and watch the stars. Somehow, watching the stars as you grasp the corn and bite away the sweet, slightly crisp kernels, makes it seem much better.

There are always greens to be had—dandelion, pigweed, mustard, pusley, and cowslips. If you cannot get enough of one kind, mix them. Many people prefer their summer greens mixed in this manner. Wash them

thoroughly, put them into the kettle, adding very little water, and boil until they are tender. Add butter and seasoning. They make a splendid variety in the camp menu.

Do not bother with cook-books. They call for too many things that campers seldom have, and this discourages you. Just go ahead and cook, follow these suggestions, and your own good common sense will do the rest.



"DO NOT BOTHER WITH COOK-BOOKS."

the protecting shell, so there is no need of the leaves. Just wrap them in wet newspaper, thrust them in the coals, and, when the paper dries and begins to burn, remove them. Your eggs will be "baked" to perfection, just soft enough to enable you to clip off the end and eat with a spoon, adding a bit of butter and seasoning.

Cereals are always handy in camp. You may not have fresh milk to put on them, but you can

NATURE AND SCIENCE FOR YOUNG FOLKS



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LAKE ST. MARY'S—GOING-TO-THE-SUN CAMP.

THE ROOF-TREE OF THE CONTINENT

GLACIER NATIONAL PARK, in Montana, was set aside by the Government and given over to public enjoyment only six years ago; it is therefore one of the newest of our national parks.

It is an area of some fifteen hundred square miles, in the northwestern corner of the State of Montana, and extends for over fifty miles along the international boundary between the United States and Canada to the Blackfoot Indian Reservation on the east, while its western boundary is the North Fork of Flathead River.

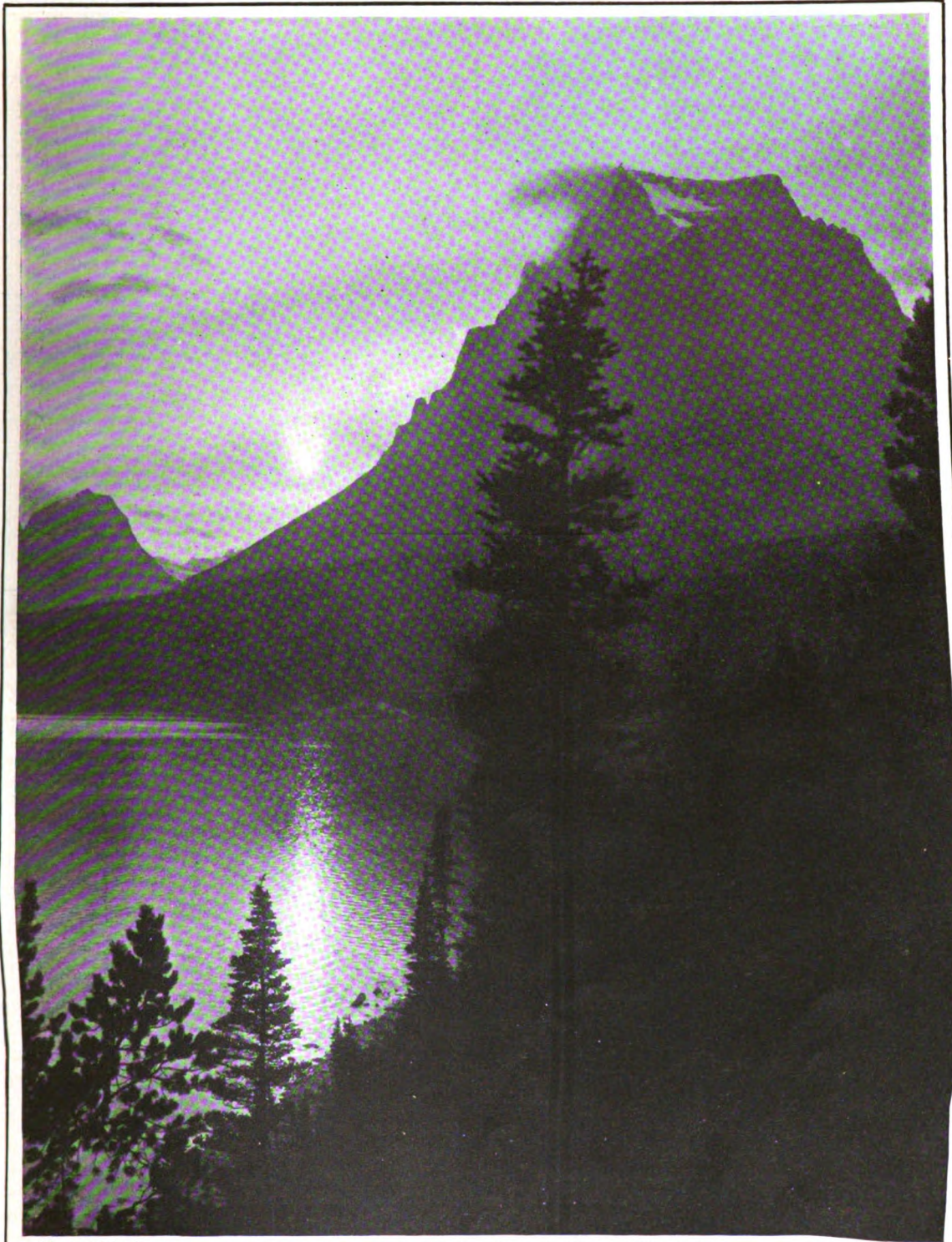
The region is wild and mountainous, the last resort of the Indian in his natural state, before he surrendered himself wholly to the guardianship of the white man's government. Excepting a few ranches which lie in the river valley along its western margin, the whole region remains today as it has been from the beginning.

It has long been famous as a rich and difficult region for the big-game hunter. But since it has become a public recreation-ground, while fishing is allowed, the carrying of firearms and the hunting and killing of native animals are forbidden. In consequence, the mountain goats, the bighorn

sheep, and the back-tailed deer are found there in increasing numbers. The buffaloes, alas! are gone beyond hope of reestablishment, and all that remains to be seen of them are whitened skulls with their crescent-shaped horns which are used decoratively about the buildings newly erected for tourists.

The Rocky Mountains attain here their greatest altitude and reveal their richest wonders of form and color. The region adjoins that of Banff and Lake Louise in Canada, famous since the opening of the Canadian Pacific Railway; and though the peaks to the north, across the border, are somewhat higher and the snow-fields broader, the scenery is essentially the same.

Geologists tell us of the Rocky Mountains that they are among the newest, the youngest, of the mountains of the world. It is because they are young that they are *rocky* mountains—sharp-peaked and ragged; mountains of bold outline, of steep precipices, and deep valleys. Even mountains wear away, for snow and wind and frost and sun break the rocky walls and crumble the steep surfaces; glaciers grind and avalanches tear, until through long ages the high peaks sink toward the plains. But even so, it is many, many



Photograph by Haynes.

GOING-TO-THE-SUN MOUNTAIN, GLACIER NATIONAL
PARK, MONTANA.



Photograph by Haynes.

LITTLE CHIEF MOUNTAIN, FROM GOING-TO-THE-SUN CHALET.



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GUNSIGHT LAKE AND CHALET, AS SEEN FROM GUNSIGHT PASS.



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GOLDEN-STAIR FALLS BELOW ICEBERG LAKE.



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SWIFT-CURRENT GLACIER FROM THE TRAIL.



Photograph by Haynes.

LAKE MC DERMOTT.



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AVALANCHE BASIN.



AT THE CREST OF GUNSIGHT PASS.—THE CONTINENTAL DIVIDE.
Looking toward the Pacific Ocean.



Looking toward the Atlantic Ocean.

ages since the crests of the Rockies were raised to the skies.

These mountains rise abruptly from the dry plains on the east, and subside gradually westward toward the ranges nearer the coast. Within the confines of the Park extends the Continental

Divide, the ridge-pole of the continent. Down the eastern slope flow streams which feed the Missouri River, while the westward-leading streams reach the Pacific Ocean by way of the Columbia River. But, more than that, the summits command a third watershed, for the valleys



Photograph by Haynes.

EVENING AT GOING-TO-THE-SUN CHALETs, ST. MARY'S LAKE.

which lead away northward to the plains carry waters which empty at last into Hudson Bay.

The peaks rise to an elevation of ten thousand feet or more; they stand high above timber-line, gaunt and sterile. In their hollows they hold the snow-fields; the snow-fields feed the glaciers, and from the glaciers above to the lakes at the bases of the mountains descend splashing streams of milk-white water. These blue lakes, shadowed about with somber green spruce forests, reflecting in their depths the crags and the sunset skies, afford one of the greatest charms of the Park.

The Park is easy of access, for the railroad

part of this seemingly fanciful idea is that he has made it a fact. True, he has not calmed the tempest; but he has robbed the waves of their power to do harm, and has recently saved a costly pier that would, in all likelihood, have been smashed to bits or badly damaged by the billows. He was able to perform this seeming marvel by means of a breakwater of bubbles. Breakwaters, as you know, commonly are massive walls of stone.

At El Segundo, California, one of the big oil companies has a pier reaching out into the sea for a distance of twenty-one hundred feet. A



"THE BILLOWS COLLAPSE LIKE STRICKEN GIANTS." (SEE NEXT PAGE.)

The whitened area was made by the bubbles just after the air was turned on.

skirts its southern margin. In the Park itself there is communication by automobile with Lake St. Mary's, and between this lake on the east and Lake McDonald on the west is a comfortable trail across the Divide which may be traversed on horseback in a day. Besides this thoroughfare there are many other bridle-paths which the tourist may follow on horseback or afoot as far into the wilderness as he may care to go. For these more enterprising visitors there are established and comfortable stopping-places in the southern portion of the Park; but if one wishes to visit the northern part it is necessary to take a camp equipment and pack-horses.

BAYARD H. CHRISTY.

CALMING THE SEA BY AIR-BUBBLES

PHILIP BRASHER, a young engineer and a graduate of Princeton University, said to himself not long ago: "If the wind makes the waves, why not use air in motion in another way to still the storm-tossed waters?" And the most astonishing

little over a year ago that dock was nearly twice as long, but a gale blew and great breakers rushed upon it like a storming army, crushing and carrying away half of the structure. This still left a depth of thirty feet of water at the outer end of the wharf, sufficient, when the weather was fair, to permit boats to be docked and loaded there. The thing that troubled the owners was what might happen if another gale blew? One more storm like the past one would probably destroy the rest of the pier and mean a loss of hundreds of thousands of dollars. The engineers had heard of Mr. Brasher's invention and decided to try it.

This novel breakwater is nothing more than iron pipe laid upon the ocean's sandy bottom. It is pierced with small holes from which streams of air-bubbles can rise surfaceward when compressed air is forced into the piping. The pipes are laid so as to rest right across the path of the oncoming waves, and the rising bubbles catch the waves before they can reach the pier, and rob

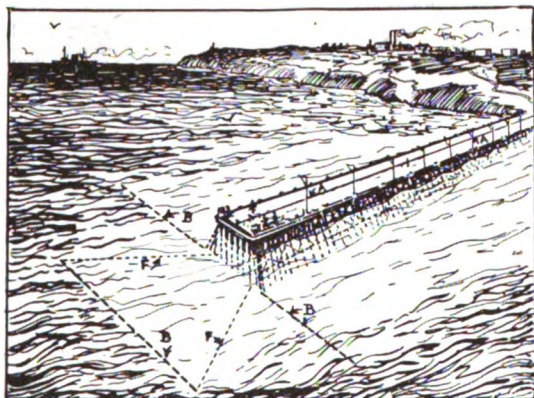


DIAGRAM SHOWING HOW THE AIR BREAKWATER WORKS.

A, end of pier to be protected; B, heavy waves; C, C, air-pipe and the perforated section from which the air-bubbles rise and break up the waves; D, sea bed; E, area of quieted waters; F, air-compressor that furnishes the air for the breakwater; G, valve that regulates the supply of compressed air.

them of their strength by upsetting the motion inside of the waves. The billows collapse like stricken giants, and then roll landward without power enough left to do the pier harm. "But," you will ask, "how can air-bubbles do what a big stone wall sometimes fails to do?"

To the eye, each wave seems to be a separate body of surging water, and apparently goes sweeping along. But this is not really the fact.



THE BREAKWATER AT EL SEGUNDO.

A, A, compressed-air line from shore station; B, B, B, perforated piping on sea bed, from which air is discharged; F, F, air line to advance pipe.

The mass of the water does not move forward. A wave robbed of its internal motion collapses, and cannot pass on this motion to the water next ahead of it. In short, it cannot create another wave. The way to upset this internal motion, then, is to disturb or break up the body of the wave. Mr. Brasher does this by the explosive action of rising air-bubbles, and thus he halts the travel of the energy which causes wave after wave.

ROBERT G. SKERRETT.

THE EARTHWORM'S NERVES

THE common earthworm, it has just been discovered, has two sorts of nerves.

One of these is a thread running lengthwise of the body between the places where head and tail would be if the creature had either. This nerve has only one use—to carry the signal to shorten

up. So when the worm, keeping underground by day, comes by night half way out of its hole, and suspects, though he cannot see, the early bird looking for breakfast—whisk! goes the signal along the nerve thread, one end of the body flattens out and locks fast in the burrow, and the rest pulls into safety. This sort of nerve carries a message at the rate of a yard and a half a second, or about seventy times more slowly than our own do.

The other sort of nerve takes care of the crawling. Signals along these nerves travel only an inch a second. If our inner telegrams were sent as slowly, it would be a whole minute from the time the pitcher threw the ball till the batter started to swing his club at it!

Yet, as the simpler creatures go, the earthworm is not especially sluggish. The fresh-water clam, for instance, gets word from one part of its body to another at only half the earthworm's rate. So it is 2400 times slower than a man.

The plants are still slower-witted. The cleverest of them, such as the fig, act just about as quickly as the fresh-water clam. Most of them, when they close their blossoms at night or screw their leaves toward the sun, signal a movement ten times less speedily than clam and earthworm and twenty thousand times less speedily than we human beings do. EDWIN TENNEY BREWSTER.

THE ICEBERG PATROL

Using Uncle Sam's Big Guns to Save Human Life

THE United States Government has maintained an iceberg patrol since the time of the *Titanic* disaster. Revenue cutters and scout cruisers of the regular Navy are employed in this work. They patrol the Grand Banks for about three months, beginning in April or May. They have even tried to demolish icebergs by firing shells at them, and succeeded in smashing off tons of ice at a time; although, of course, in the case of big icebergs it was not practicable to completely destroy them by gun-fire.

Besides attempting to destroy icebergs where possible, the vessels of the iceberg patrol chart

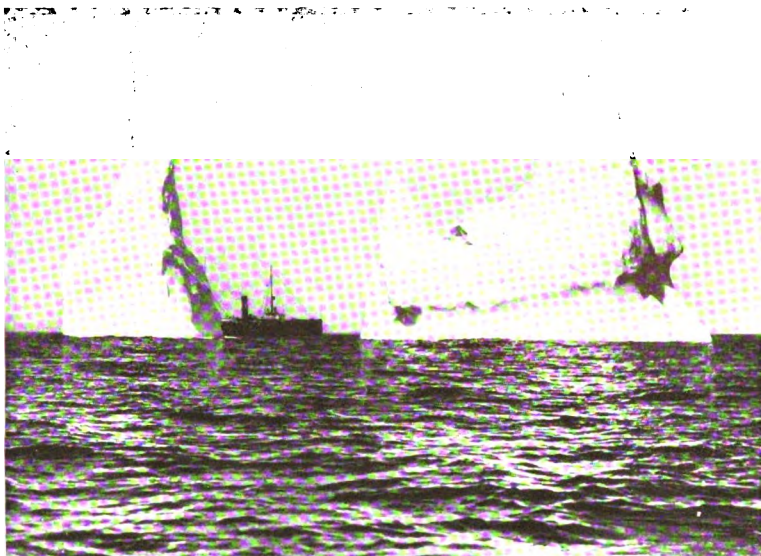
all bergs sighted, and report them by wireless to the Government—their location, the direction in which they are drifting, and at what speed.

The Navy and the revenue-cutter service are studying the most effective means of detecting the presence of icebergs at night or in a fog, basing their work on the following interesting facts:

The *perpendicular* faces of icebergs *reflect* sound,—that is, they give off echoes,—and a navigator can calculate his distance from the obstruction by noting the length of time between sounding his whistle and hearing the echo. *Slanting* faces of icebergs cause sound to *reverberate* because they *deflect* rather than *reflect* sound. Thus, we see, a navigator may even get some idea of the shape of an iceberg without seeing it.

The greatest number of icebergs encountered are in water of between thirty-five and forty degrees temperature, and no drop in temperature is discern-

as to temperature, and so the thermometer cannot be used with any degree of certainty to detect the presence of icebergs. Thermometers



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U. S. REVENUE CUTTER *SENECA* FINDING TWO GIANT ICEBERGS.

were used as far as twenty fathoms beneath the surface with no better results.

Lookouts at night have been found to be uncertain in detecting icebergs because of the height of the crow's-nest, where lookouts are generally placed. A man may be so high above the surface of the water that he looks *down* on the iceberg, and its profile does not then break the sky-line, or horizon, and he cannot see it. Thus it has come to be deemed necessary to post lookouts at different heights, the most effective being about that of the bridge.

Little or no change in the temperature of the air can be noted in time to veer a ship off from an iceberg if she is headed toward it at any considerable speed.

The revenue-cutter service reports declare that the only safe way to navigate in waters

where there is danger of icebergs is to steam very slowly, stop frequently, and keep lookouts posted at various heights above the surface of the water.

H. M. SNEVILY.



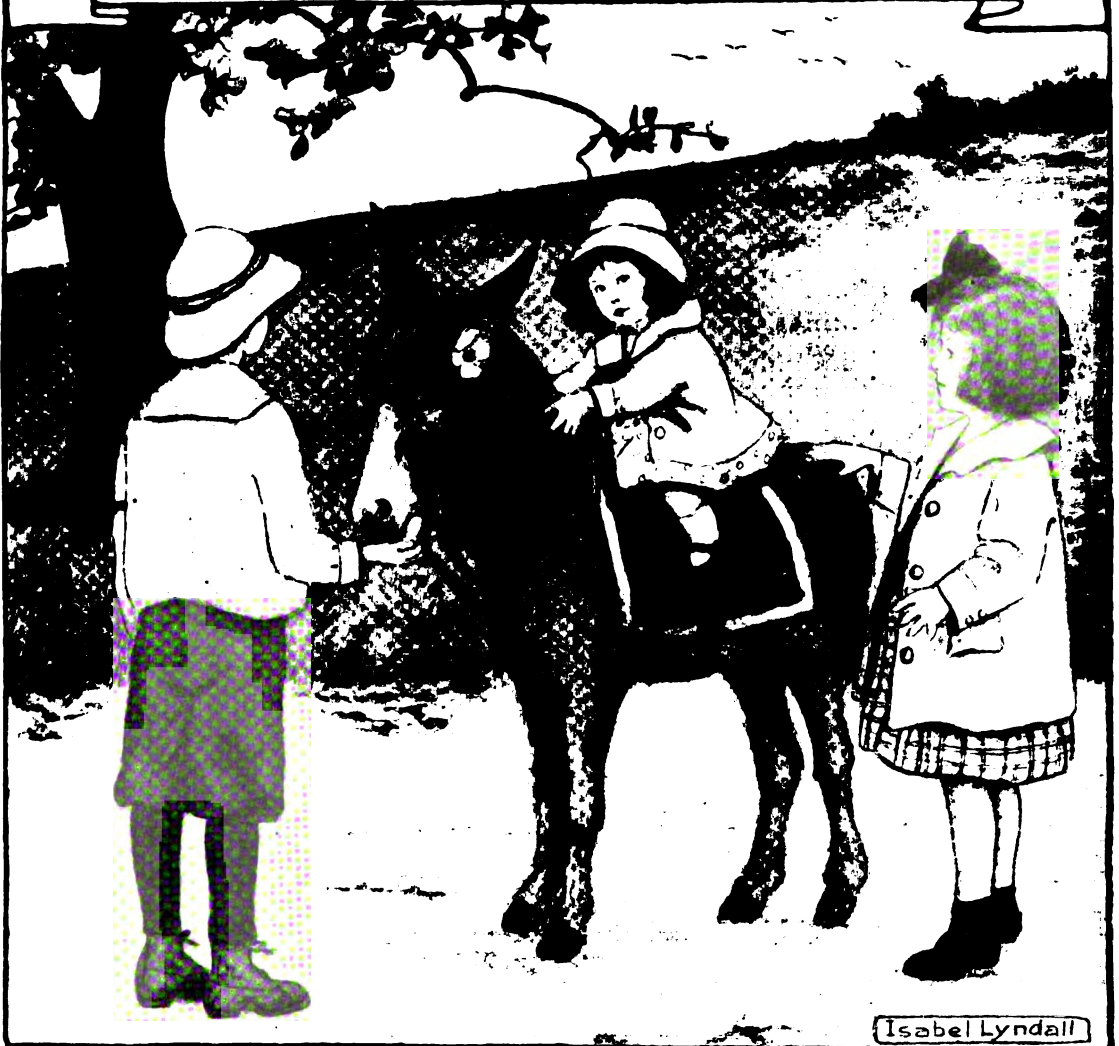
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U. S. S. *BIRMINGHAM*, SCOUT CRUISER.

ible in the surface waters until within about a ship's length from the iceberg, when a drop of three or four degrees is usual.

Tests have shown that sea water is "streaky"

Our Pets



This is our own pet donkey,
His name is Dandy Jim.
I think he's very fond of us ;
I'm sure we all love him!



These are our pet white rabbits.
They are not hard to keep;
They play with us a little while,
But mostly eat and sleep!



Here is our big dog Bruno,
The best friend we can find,
For though *we* often are quite cross,
He's always good and kind!



Here is the one we love the best,
Here is our *dearest* pet;
Our brand-new baby sister!
Her name is **Anne Jeanette**.



"A HEADING FOR JUNE." BY E. LIONEL PALMER, AGE 17. (HONOR MEMBER.)

IN these days of war and rumors of war, the LEAGUE pages are like a green oasis in a desert—a place of repose where you may forget for a time the turmoil and tragic events of the great world, and enjoy an hour of June sunshine, with youth and cheer and all things beautiful. For it is an inspiring experience to welcome here, month by month, such a rich fruitage of youthful ambition and endeavor, and note with joy to what heights of achievement the earnest ardor of our girls and boys can carry their efforts, whether literary or artistic. The gold and silver badges are but a small measure of the appreciation they deserve; and though the words of praise accorded in each introduction may seem to have grown trite through constant repetition, yet the stories, verses, and pictures sent in by the young folk themselves have no trace of uniformity and are a continual source of delight by reason of the amazing originality or freshness of fancy and ingenuity which they display. They are like coins newly issued from the mint, clear-shining with the impress of young minds

and hearts in the first flush of their awakening to the wonder and beauty of life and the world about us.

It is no small triumph—indeed it is among the records in which St. NICHOLAS takes most pride—that the aims and purposes of the LEAGUE have drawn forth so wonderful a response throughout the sixteen years of its existence. And one of the most cheering features of its success is that, as rapidly as one group of its most gifted members reaches the age-limit, another and even greater crowd of eager aspirants immediately takes its place. The LEAGUE has been, in fact, a huge training-school,—the greatest of all schools, in one sense,—since it comprises a host of thousands upon thousands of bright-minded, voluntary pupils who love the work it offers them for its own sake, and are joyously eager to match their wits in its competitions with those of their loyal comrades all over the land. Is it any wonder that its members are so loth to leave it, and are so sorry when graduation day arrives? But many of them are enrolled already among magazine writers and illustrators.

PRIZE-WINNERS, COMPETITION No. 196

In making the awards, contributors' ages are considered.

PROSE. Gold badge, **Walter Hanlon** (age 15), New York.

Silver badges, **Thomas Blair** (age 14), Pennsylvania; **Lois Meier** (age 16), Massachusetts; **George Gordon Mahy** (age 13), Pennsylvania.

VERSE. Silver badges, **Eleanor R. Dobson** (age 11), Maryland; **Eleanor Slater** (age 13), New York; **Catherine Parmenter** (age 10), Massachusetts; **Rebecca Emery** (age 14), Colorado.

DRAWINGS. Gold badges, **Grace B. Cuyler** (age 13), New York; **Lucie C. Holt** (age 16), Pennsylvania.

Silver badges, **Naomi Brackett** (age 12), Connecticut; **Isabel Bacheler** (age 17), Connecticut; **Evelyn B. Rosenthal** (age 17), Canada.

PHOTOGRAPHS. Gold badge, **Frederick A. Small** (age 16), British Columbia.

Silver badges, **Edith L. Mayer** (age 12), New York; **Blanche Raby-Brown** (age 10), Iowa; **C. Everett Rhodes** (age 15), New York; **Grace R. Lewis** (age 11), Connecticut; **Elizabeth Osius** (age 15), Michigan; **Milton Rogers** (age 16), Nebraska.

PUZZLE-MAKING. Silver badges, **Charles A. Howard, Jr.** (age 11), South Dakota; **Louis Burt** (age 15), New York.

PUZZLE ANSWERS. Silver badges, **Nancy Hough** (age 11), New York; **Alice Poulin** (age 13), California; **Constance Miller** (age 12), New York.

IN DAYS OF OLD

BY JESSIE MARILLA THOMPSON (AGE 14)

(Honor Member)

Wise men from out the distant East have said
That, ere this life, a hundred lives we 've lived,—
Nay, and a hundred hundred lives ere this,—
Here, as at present, in the world of men;
Lived we, and died, and then returned again.
And maybe that is why we love to read
The hero tales of old, the lives of men
Who have been landmarks in the road of years;
For maybe we have seen those very men,
Have helped them do the deeds that brought them
fame.—

Who knows? Or, maybe, on the battle-fields,
Those that made history,—even we were there.
I wish I could recall thro' all the years
The deeds I did, words said, or left unsaid,
That maybe made or marred my span of life.
I wish I knew what part, perchance, I played;
If, maybe, I was actor in those scenes
Which changed the course of nations in their strength.
Perhaps it is some memory of these things
That lends the charm to those old hero tales,—
A memory, whisp'ring down the span of years;
Oh, maybe, when these wondrous deeds were done,
In days of old,—perhaps I, too, was there!

THE STORY OF A FRIEND

BY FLORENCE M. TREAT (AGE 17)

(Honor Member)

THERE you stand in the corner, your dark case shining
in the last light of the winter day, your keys slightly
yellowed by the years that have passed since the day
when my hands first touched them. A glad day was



"AT WORK." BY EDITH L. MAYER, AGE 12. (SILVER BADGE.)

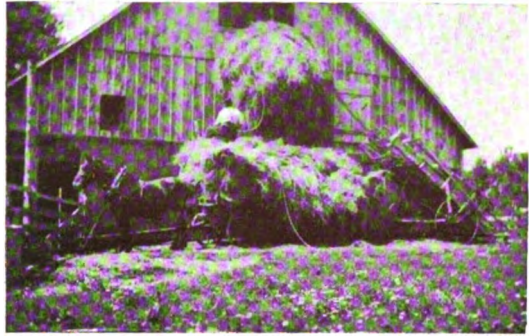
that for us both! How reverently then my unskilled
fingers pressed their shining ivory! And then, as since,
you brought me untold joy.

You but wait my touch to leap instantly to the clear
reality of the sound I bid you bring forth. No tantalizing
disappointment meets my ear, no unresponsive
silence! You are all sympathy, all vibrating life and
feeling.

Sometimes it is the delicate tinkle of running brooks
or the rustle of leaves you sing; sometimes the stirring
clamor of a martial call to arms. Again it is a gay
little waltz that sets the feet a-flying and pulses all
a-throb. Or when the room is quiet and the lights are
low, you fill the silence for me with the unspeakable
beauty of a favorite nocturne or sonata. It may not
be a tune at all—only a fanciful jumble of chords and
runs and trills.

Sometimes, when hand and mind are weary, it is
some simple old melody you share with me. It is then
I love you most, for through the low sweetness of the
notes I grow strong again.

It is true that once in a while I fail you. Sometimes
I bang you terribly, and forget how sacred are
the harmonies you hold for me. But when I remember

"AT WORK." BY BLANCHE RABY-BROWN, AGE 10.
(SILVER BADGE.)

again, then *you* never fail *me*. All the varying moods
of my life you echo with an added meaning. Sadness
and mirth, hope and disappointment, exultation and
longing, we have shared together.

What shall it be to-night, friend of mine?

THE STORY OF A FRIEND

BY THOMAS BLAIR (AGE 14)

(Silver Badge)

Two chums were talking together one June afternoon.
Their subject was the coming athletic meet with their
rival school, Williamson Hall, one week from that day.

John Prescott and Fred Benson had been friends ever
since either of them could remember. And on coming
to the school, Milton Academy, they had secured a room
together. When spring came, they had both earned
places on the varsity track team.

"AT WORK." BY C. EVERETT RHODES, AGE 15.
(SILVER BADGE.)

That week hardly anything but the coming track meet
was talked about. John was looked upon as the sure
winner of the mile race, as he had already won three
of such races that year, thereby winning the privilege
of wearing the school letter on his sweater. Fred
must win one more race to secure that same privilege

for himself; and, as he was in the same race as John, his chances were slim.

Finally, the day for the races came; and finally, in its turn, came the race which John and Fred were to be in.

All the contestants lined up at the start, and at the crack of the pistol all were off—five from Milton and five from Williamson.

As the runners passed the three-quarter mark John



"A HEADING FOR JUNE." BY EVELYN B. ROSENTHAL, AGE 17.
(SILVER BADGE.)

and Fred forged ahead—John slightly in advance. The cheers grew deafening as he was about to cross the finish-line.

Suddenly he remembered, "Fred needs one more victory to give him his letter!"

THERE were very few who knew the real reason why John Prescott tripped and fell, apparently from sheer exhaustion, so near the finish, letting Fred Benson breast the tape, a winner by two yards!

IN DAYS OF OLD

BY SARAH F. BOROCK (AGE 15)

(Honor Member)

FLASHING, piercing stainless blue, Camelot's white towers

Glitter over castle walls, over dainty bowers.
O'er the level tourney field, how the trusty blade
Clashes in a blinding sweep for a blameless maid!

How the burnished armor gleams! Arrowlets of light
Dart from ev'ry blazoned shield! Eager for the fight
Every charger quivers 'neath trappings steel and gold!
How the silken banners sweep in voluminous fold!

Harken to the ring and clang! Arthur's knights are here—

Galahad and Percival—faithful Bedivere,
Gareth, Tristram and Geraint, Modred and grim Kay,
Balin and brave Lancelot, foremost in the fray.

Hark! the throstle's evening song—fades the scene away—

O'er the branches pours the light of the dying day.
Yet, methinks, the distant brook's mellow tones of gold
Glorify in the valiant deeds of the days of old.

IN DAYS OF OLD

BY MAX STOLZ (AGE 16)

(Honor Member)

IN days of old there was no Henry Ford,

In days of old they had no Roosevelt.

No peace-ship ever ventured to the belt

Of war with lots of pacifists on board.

In days of old there were no home-runs scored;

They did not know one might have force to pelt

A little sphere so hard that thousands felt

The thrill of joy or grief while "bleachers" roared.

No rag-time then did anybody sing.

Five pennies never had been called a "jit."

The worthy minions would have thrown a fit

If any one had criticized a king.

Steel was not stocks, but dress-suits for the men.

Oh, are n't we lucky that we were n't born then?

In days of old "War Babies" never soared,

No poison gas had ever murder dealt.

Their minds "preparedness" would never melt.

Their secretaries did not take the board,

On lectures bound, to prove that they were floored

In days of old their words, though badly spelt,

Did not, as "scraps of paper," backward pelt.

The pen was never mightier than the sword!

In days of old no "movies" e'er were scanned.

Wrist-watches were unknown to man and maid.

No Zeppelins could make a midnight raid.

No soda-fountains stood at every hand.

Rejoice, each voice, and hymns compose, each pen!

Oh, are n't we lucky that we were n't born then?

THE STORY OF A FRIEND

BY AGNES NOLAN (AGE 16)

(Honor Member)

PICTURE the agora, or meeting-place, at old Syracuse crowded with people. Dionysius the Tyrant held court on a high throne from which he could see the blue waters of the "Lesser Port" and the penapyla, which was the front of the island of Ortygia, and which had been fortified by lofty walls with many towers.

Pythias, a noble-looking Athenian youth whom Dionysius in hasty anger had condemned to death, came to the royal dais and asked that he might go to his native Greece to arrange his affairs, promising to be back before the time appointed for his execution.

The tyrant laughed in scorn. "Once safe out of Sicily, no man will answer for your reappearance," he said. But lo! from the throng stepped Damon, a friend and countryman of the doomed youth. Prostrating himself before the throne, he begged that he might become surety for his friend, and offered to die in his stead if Pythias did not return in time. Dionysius was surprised, but accepted the proposition.

The day for the execution arrived, and Pythias had not returned. The Syracusans were again gathered in the agora, marveling at the firmness with which Damon repeated that Pythias would keep his word. The fatal hour drew on, and Damon was about to be sacrificed when there was confusion and a murmur in the crowd and Pythias, exhausted, threw himself at the feet of the king.

A mighty shout rose from the crowd. Such touching devotion moved even the iron heart of Dionysius, who immediately ordered both to be spared and asked that he might become a third partner to such a noble friendship.



BY NANCY JAY, AGE 15.



BY GERALD H. LOONIS, AGE 17.



BY OLIVE S. PICHER, AGE 11.



BY GRACE R. LEWIS, AGE 11. (SILVER BADGE.)



BY DOROTHY POWELL, AGE 16.



BY HELEN WIEPERT, AGE 14.



BY CATHARINE H. WILLIAMS, AGE 12.



BY FRÉDÉRIC A. SMALL, AGE 16. (GOLD BADGE. SILVER BADGE WON NOV., 1915.)



BY ALICE RUMPP, AGE 14.

"AT WORK."

THE STORY OF A FRIEND

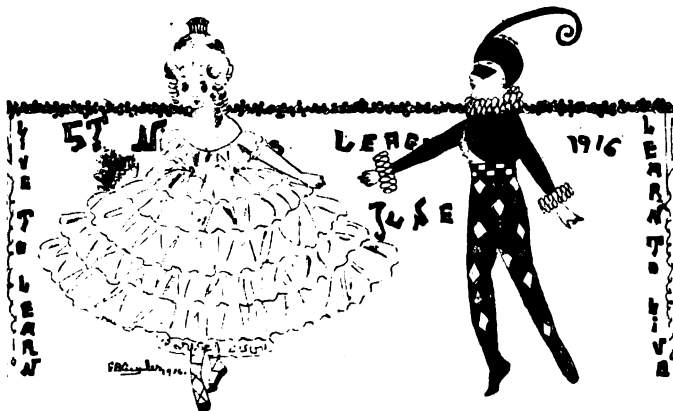
BY WALTER HANLON (AGE 15)

(Gold Badge. Silver Badge won January, 1916)

WE were looking at a moving-picture poster depicting an auto leaping off a cliff.

"That reminds me," said Joe, "of something similar which I saw in real life.

"There is a big hill outside my house, and opposite,



"A HEADING FOR JUNE." BY GRACE B. CUYLER, AGE 13.
(GOLD BADGE. SILVER BADGE WON SEPT., 1915.)

a vacant lot which is far below the level of the street. The road-bed is only prevented from sliding into the lot by a stone wall about fifteen feet high. One day I heard the throbbing of a motor, and looking out of the window, I saw a powerful six-cylinder touring-car racing up the hill. It had just passed the lot when I heard the rattle and scraping of shifting gears and decided that the driver had changed to low gear. Then a strange thing happened. The machine suddenly stopped and started swiftly backwards. The driver vainly tried to control it, but it swayed perilously from side to side, and the next moment the rear wheels pitched into the curb and through the fence bordering the embankment. The car hung on the edge for a trice, plunged over,

and landed beneath. But the bank was not deep enough for it to fall down completely, and at first the front wheels rested on the edge. Then the force of the fall swung them off, and the machine began to topple backwards,—to turn turtle. The occupants would surely be killed! Now it stood almost upright and quavered in the balance. Finally, with a shudder of indecision it relapsed, and the front wheels settled again on the wall.

"The passengers, dazed and frightened, but unhurt, climbed out, and from the driver I learned the cause of the mishap. He had shifted the reversing lever!"

IN DAYS OF OLD

BY ELEANOR R. DOBSON (AGE 11)

(Silver Badge)

IN days of old when knights were bold,
They to the joust did go;
There on the field with sword and shield
They struck full many a blow.

When might was right, full many a knight
The merchant trains did plunder,
When spices rare and fabrics fair
Were held in greatest wonder.

The feudal lords with their good swords
Always their king attended;
Their castles old, their vassals bold
In time of need defended.

The minstrel's call was hailed by all,
And welcome loud was worded.
He chanted lays of many frays
And deeds of might recorded.

In chivalry a knight should be
Most courteous and bold,
And if there came to him great fame,
He 'd count it more than gold.

The days of old when knights were bold,
Oh, golden days were they!
But I know *we* would rather be
In our dear land to-day.



BY RUTH S. BURGESS, AGE 15.



BY MARJORIE BIER, AGE 13.

"AT WORK."



BY ELIZABETH OSIUS, AGE 13.
(SILVER BADGE.)

THE STORY OF A FRIEND

BY LOIS MEIER (AGE 16)

(Silver Badge)

If you had searched all over town you could not have found a more faithful friend to the townspeople, especially to the boys and girls. High up in the belfry of the old brick school-house it hung, a huge copper bell which meant more to the children than all the church bells, for every church had a bell, but not every school. To the old people every peal was full of memories of their school-days.



"AT WORK." BY S. RAYMOND EDDY, AGE 15.

When in the morning it called "Come, come," to the children, its joyous peals seemed to keep pace with the tripping feet of the girls and boys, so skilled was the touch of its zealous guardian, old Jerry. How ominous its last tones to the late-comer! After seeing all the children in school its work was completed for the morning, unless it was called to do service for a fire. At noon how happily it rang to let out the hungry children; then in an hour it called them back to school. Its voice was always joyous and happy.

One Friday afternoon flames suddenly burst up out of the roof and leaped up into the belfry. When the first cry of "Fire!" sounded, old Jerry rushed to the bell-rope, but with one sad, agonized call for help the rope fell burning at his feet. Out poured the children, scared but safe. Up rushed the engines, but the building was wrapped in flames. Amid a solemn hush the now glowing copper bell fell crashingly amid the flaming debris and was shattered into several fragments.

In many a home you may find a miniature copper bell, a tangible reminder wrought from the remains of their old friend, the school bell.



"AT WORK." BY MILTON ROGERS, AGE 16. (SILVER BADGE.)

THE STORY OF A FRIEND

BY EDWARD TRYON MILLER (AGE 12)

It was in the dark days of the American Revolution. The "rebel" forces under the great patriot George Washington were nearly exhausted. They had fought and won at Trenton and Princeton, but now they were in a terrible plight, ragged, hungry and barefooted; in fact, there was not one coat or blanket to every seven men.

At this time there lived in France a young nobleman—the Marquis de La Fayette. He took a peculiar interest in the rebellion of the American colonies, and admired the spirit and courage with which they fought.

One day the young marquis said good-by to his château in France, and sailed to America. He brought two things with him much needed by the colonies—money and his services.

He became the fast friend of George Washington; they were constant companions at Valley Forge, where the poor, ragged colonial army suffered such hardships as few fighting forces have ever withstood. He fought by the great general's side at Monmouth and at the great victory at Yorktown. Here it was La Fayette who rode directly behind Washington when the sword of Cornwallis was received by the great and able leader of the colonial forces.

After the war La Fayette returned to his home in France. In 1820 the young marquis made a visit to the new country which he loved so well. One of the most cherished places was the familiar porch at Mount Vernon, where he and Washington had had so many pleasant talks together.



"THE CALL." BY LUCIE C. HOLT, AGE 16. (GOLD BADGE. SILVER BADGE WON NOV., 1912.)

IN DAYS OF OLD

BY ELEANOR SLATER (AGE 13)

(Silver Badge)

In days of old when yeomen bold
Made merry in the deep greenwood,
There was scarce a knight but knew the sight
Of the outlaw, Robin Hood.

Still Robin brave was called a knave,
For a robber bold was he,
But he robbed the bad and helped the sad
Throughout the north countree.

In the greenwood glade when the moonbeams played,
Then feasted the merry men;
They danced and sang till the deep woods rang,
And morning dawned again.

'T is long since then, and the merry men
No longer roam the wood,
But the world to-day and the children gay
Remember Robin Hood.

IN DAYS OF OLD

BY CATHERINE PARMENTER (AGE 10)

(Silver Badge)

WHEN pirates sailed the stormy seas,
Yo-ho! Yo-ho!
And sails were open to the breeze,
Yo-ho! Yo-ho!

Old Captain Kidd, the pirate bold,
Captured the ships and got the gold,
In days of old, in days of old,
Yo-ho! Yo-ho!



"A HEADING FOR JUNE." BY VERNITA C. HAYNES, AGE 16.

A STORY OF A FRIEND

BY GEORGE GORDON MAHY (AGE 13)

(Silver Badge)

I MET my friend in the woods of northern Pennsylvania. It was his strong tenor that first attracted my attention. I was walking through the woods when I heard some one singing. The song started high in the scale, and then gradually descended with clear, silvery notes, and looking in great curiosity for the owner of this fine voice, I at last came upon him among some bushes. He was dressed in brown with a white shirt, and he had twinkling brown eyes to match. But he was in a great hurry to get back to his wife, as I learned later, therefore I did not detain him. During my many visits to the woods I gathered more information about my friend. He owned a little



"A CALL," BY NAOMI BRACKETT, AGE 12. (SILVER BADGE.)

home set 'way back in the trees, and often I heard him call "William!" in a sharp, commanding voice; and although I never saw "William," I supposed he was the son of my friend. Also I learned that he only stayed for the summer, with his family. We became more and

more friendly during those drowsy summer days, for although he was rather shy, he would often sit near me and sing for hours. But at last the time came when he must go back to his winter resort in the South, and I was very sorry; for those hours of listening to that sweet music, like the sound of the wind through an Æolian harp, has stirred my memory for years afterward. I will never forget my friend the veery.

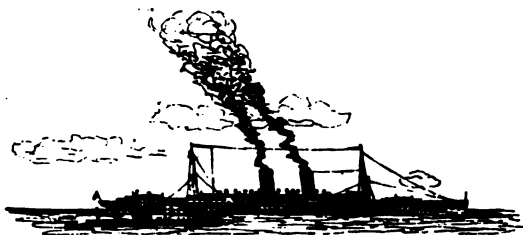
IN DAYS OF OLD

BY REBECCA EMERY (AGE 14)

(Silver Badge)

SILENT lies the stately garden; in a vine-twined, shady nook
Sits a dainty, rose-fair maiden, flowers drooping o'er her book.
Reads she tales of fairy people, or a dry and ponderous tome?
Follows she the brave explorer, dusky forests wild to roam?
No; her eyes, the page unseeing, phantom castles see in air,
Form they take, and tint celestial, exquisite, divinely rare.
But the vision sweet is broken—one invades the peaceful scene;
What is passing in the bower, there beneath the green leaves' screen?

Years have flown since that bright June day, but that memory so sweet
Tells she children, children's children; they in their turn will repeat.
'T is the story of such wooing grandmothers have often told;
Courtly, quaint, but ardent wooing, long ago in days of old.



"A CALL," BY LAWRENCE SIDNAM, AGE 15.

THE ROLL OF HONOR

No. 1. A list of those whose work would have been used had space permitted.
No. 2. A list of those whose work entitles them to encouragement.

PROSE, 1

May E. Wishart	Alan Atkins	Elizabeth Kleiman
Martha A. Williams	Ethel Tefft	Katherine Gauss
Katherine Keenhan	Gertrude Wheeler	Mary Stuart
Dorothy Weedon	Roma Kauffman	Harriet B. Pratt
Naomi Storer	Griffith M. Harsh	Katharine M. Harper
Edna D'Arcy	Edith Heal	Antoinette Baker
Wellesley P. Davis	Amy Egbert	Eleanor Hard
Vivian S. Lockridge	Lolita Stubblefield	Stuart Fullerton
Katharine Bartlett	Elizabeth A. Robinson	Barbara Corfield
Hugh L. Willson	Dorothy V. A. Fuller	Alice C. Good
Mabel Warren	Arthur Krom	Katharine Holmes
Martha E. Keller	Ann Silver	Hope Robinson
Eleanor Matlack	Samuel B. Fortenbaugh, Jr.	Helen E. Keniston
Katharine Mordock	Etna D. Taylor	Katharine Van R. Holste
Margaret L. Webster	Alice Warren	Margaret Willson
Helen R. Spencer	Virginia Allock	Sydney H. Archbell
		Ann P. Cabell

Marie Gignoux
Katherine Yager
Elizabeth E.
Herendeen
Mary E. Feddeman
Macbelle Brooks
Katharine A.
Fleming
Arthur C. Johnson
Marion Evans
Carolyn Woodruff
Elizabeth Meyer
Freda Melnik
Isabel McKean
Ruth K. Gaylord
Helen Gent
Frances Gillmor
Eleanor Eckhart
Ruth E. Baker
Ellen B. Lay
Elizabeth E. Clark
Erna Schraubstadter
Bruce Lockridge
Ethel Van Meter

Margaret Markham
Agnes Macdonald
Arthur W. Jerrems,
Jr.
Mary G. H. Short
Elizabeth G. Buell
Ruth Eger
Kate A. Cox
Lena Becker
Anna F. Hedrick
Bessie Radlofsky
Rosalie Dunlap
Dora Sanders
Jean Harper
Ruth B. Willis
Marion West
Ruth E. Jeffrey
Virginia Traylor
Susannah Platt
Katherine Bryan
Mildred Frank
Mary Lockett
Elizabeth Le B.
Chase
John D. Cox
Leota Lohr
Frances Keineke
Elizabeth M. Dukes

DRAWINGS, 1

Henry J. Meloy
Virginia L. Hyams
Eunice Walker
N. D. Hagan
Philip Elliot
John O. Logan
Muriel W. Curtis
Dorothy A. Buck
Helen G. Barnard
Adelaide Winter
Lois M. Fox
Helen K. McHarg
Earl A. Garard
Henry C. Silldorf
Cornelia D.
Waddell
Catherine L.
Spencer
Elizabeth Mumford
Grace Fitz Roy
Doris Flather
Lillian Sternberg
Mary A. Mack
Gladys Weston
Jack Cook
Elizabeth A. Jones
Mary E. Askew
Alice L. Morrell
Elizabeth Mouat
Martha R. Childress
Lillian Auld

Margaret S.
Guthrie
Paul Dettlesen
Crosby Hodgman
Betty Sanderson
F. B. Fox
Roland Jessop
Helen Mackenzie
Anne Fitz Gerald
Robert C. Mare

PHOTOGRAPHS, 1

Alice B. Lee
Alma M. Hopkins
Frances Weed
Dorothy Higgins
Lydia Gillette
Mary Smyth
Evelyn Adgate
Mary H. Atkinson
Hazel W. Russell
Bianca Olcott
Frances Adkins
Margaret Mathews
Jos. Pearlstein
Elizabeth Graves
Edwin Durland
Helen Putnam
Engle M. Howden
John Underwood
Billy Mitchell
James W. Harris
Eda McCoy
Elizabeth E. Horne
Laura Morris
Isabel Schaefer
Alice Welles
Helen Stilson
Don Marshall
Lucy Pomeroy
Robert J. Sloan, Jr.
Margery
McCullough
Elizabeth S.
Chewerius
William H.
Gratwick, Jr.
Lillian A. Watkins
Betty Lowe
Stephen Cheney
John C. Gabel
Helen Loring
Helena W. Jelliffe
Barbara Blake
Joyce Ganzel
Margaret Gabel
Mary Bancroft
Dorothy Dobbins
Herbert Williams
Howard R.
Sherman, Jr.

PUZZLES, 1

Geraldine Mallette
Louise Sumwalt
Prescott B.
Huntington
Isabelle Betts
Ben Schwartz
Mary M. Hudson
Eleanor Manning

Harry T. Chase
Virginia Hunt
Peggy Gantt
Eleanor Cook
Margaret Hunt
Eleanor W. Bronson
Mary E. Steinmetz
Anna E. Rohe
Katharine
Charlesbois

PUZZLES, 2

Betty Murphy
Gordon A. Cooke
Leonore Giddings
Richard W. Johnson
Maria Chamberlain
Alice Winchester
T. W. Martin, Jr.
Louisa Lehman

PRIZE COMPETITION No. 200

THE ST. NICHOLAS LEAGUE awards gold and silver badges each month for the best *original* poems, stories, drawings, photographs, puzzles, and puzzle answers. Also, occasionally, cash prizes to Honor Members, when the contribution printed is of unusual merit.

Competition No. 200 will close **June 24** (for foreign members **June 30**). Prize announcements will be made and the selected contributions published in **ST. NICHOLAS** for **October**.

Verse. To contain not more than twenty-four lines. Subject, "When Swallows Build."

Prose. Essay or story of not more than three hundred words. Subject, "Summer Visitors."

Photograph. Any size, mounted or unmounted; no blue-prints or negatives. Subject, "At the Corner."

Drawing. India ink, very black writing-ink, or wash. Subject, "In the Doorway," or a Heading for **October**.

Puzzle. Any sort, but must be accompanied by the answer in full, and must be indorsed.

Puzzle Answers. Best, neatest, and most complete set of answers to puzzles in this issue of **ST. NICHOLAS**. Must be indorsed and must be addressed as explained on the first page of the "Riddle-box."

Wild Creature Photography. To encourage the pursuing of game with a camera instead of with a gun. The prizes in the "Wild Creature Photography" competition shall be in four classes, as follows: *Prize, Class A*, a gold badge and three dollars. *Prize, Class B*, a gold badge and one dollar. *Prize, Class C*, a gold badge. *Prize, Class D*, a silver badge. But prize-winners in this competition (as in all the other competitions) will not receive a second gold or silver badge. Photographs must not be of "protected" game, as in zoölogical gardens or game reservations. Contributors must state in a *few words* where and under what circumstances the photograph was taken.

No unused contribution can be returned *unless it is accompanied by a self-addressed and stamped envelop of the proper size to hold the manuscript, drawing, or photograph.*

RULES

ANY reader of **ST. NICHOLAS**, whether a subscriber or not, is entitled to League membership, and a League badge and leaflet, which will be sent free. No League member who has reached the age of eighteen years may compete.

Every contribution, of whatever kind, *must* bear the name, age, and address of the sender, and be indorsed as "original" by parent, teacher, or guardian, *who must be convinced beyond doubt—and must state in writing—that the contribution is not copied*, but wholly the work and idea of the sender. If prose, the number of words should also be added. These notes must not be on a separate sheet, but *on the contribution itself*—if manuscript, on the upper margin; if a picture, *on the margin or back*. Write or draw on *one side of the paper only*. A contributor may send but one contribution a month—not one of each kind, but one only; this, however, does not include the "advertising competition" (see advertising pages) or "Answers to Puzzles."

Address: **The St. Nicholas League,**
353 Fourth Avenue, New York.



"A CALL." BY ISABEL BACHELER, AGE 17. (SILVER BADGE.)

Frances M. Savage
Sydney R. McLean
Sarah Morris
Margaret Kinsey
Ida Ginsberg
Dolores Schmidt
Matilda A.
Lehmann
Marion Ward
Smith
Alfred S.
Valentine
Lillian W. Baker

VERSE, 1

Charlotte M. Noyes
Peggy Norris
Tom S. Kittrell
Eleanor Johnson
Harriet S. Bailey
Kathryn A. Lyon
Hulda Howard
Genevieve Pfeeger
Edith V. M.
Simonds, 2nd
Oscar Kaplan
Emma Jacobs
Marie Mirvis
Albert
Stutzenberger
Gladys Ramsey
Winifred L. Willis
Margaret Kaiser
Louise
Michelbacher
Virginia H.
McKean
Marguerite Tjader
Frances B. Brooks
Elsa Doerner
Charles W. B.
Lane
Janet House
Richard Edsall
Enice W.
Thompson
Alice Bluthardt
Jean P. Robertson

Frances Schiff
Annebeth Smith
Marguerite Munger
Katherine W.
Chadwick
Margaret Tomlinson
Helen Satterlee
Frances Merrick
Amie H. Medary
Edith D. von
Steinmetz

Veryl Madison
Ruth Hadfield
Marjorie W.
Brampton
Cornelia Livingston
Vera Chapman
Jessie Evans
J. Donald Tencks
Amelia I. Rianhard
Frances Jay
Lillian Eddy



"A CALL" (TO FREEDOM). BY HELEN DAVIS, AGE 17.

EDITORIAL NOTES

IN regard to the article entitled "Birds to Save Countless Dollars a Year," published in *NATURE AND SCIENCE* last month, Mr. H. W. Henshaw, Chief of the Bureau of Biological Survey at Washington, to whom the sketch was referred by the Editor, makes the following interesting comments:

"Certain species of birds have been greatly reduced and even exterminated, but the great variety of ordinary small birds of the United States probably are more abundant now than ever before. The cutting of woods and continued settlement of the country and the planting of orchards and ornamental trees and shrubs have greatly improved the conditions from the standpoint of the small birds. Very few birds live in dense forests, such as originally covered the eastern United States, and there is no doubt that the small-bird population of this area is vastly greater than it was before settlement took place. From this it follows that the losses due to injurious insects have not grown because of the destruction of birds. The real reason for the great increase in these losses is the immense development of agriculture and horticulture, resulting in the multiplication of the food plants of destructive insects and consequently in greater opportunities for them to commit damage. The problem of reducing this damage in part is a problem of increasing the bird population.

"The statement that supposedly migratory birds have spent the winters on the White place in Chicago is misleading. Probably no birds stayed there that do not at times, at least, winter in the vicinity of Chicago. There is no doubt that Mr. White may have largely increased the number of birds wintering on his place, but it is not probable that he induced species to winter there which had never wintered in that region before.

"Further, it should be noted that it is chiefly the summer birds and not the winter species that we must in-

crease in numbers if we would lessen the damage from insects. Methods of attracting summer birds and increasing their numbers are discussed in the Biological Survey publications 'How to Attract Birds in Northeastern United States' and 'Bird Houses and How to Build Them.'

Headquarters Eastern Department
Office of the Inspector
Governor's Island, New York City.

DEAR ST. NICHOLAS: In his "Boys' Life" Albert Bigelow Paine relates the incident of Mark Twain's first meeting with General Grant. This incident has a sequel equally interesting, and, since it concerns two of our greatest men, should not, I believe, be lost sight of.

In 1898 this incident was related to me substantially as follows by Mr. Clemens himself, apropos of General Grant's remarkable memory:

"During General Grant's first administration, one morning, while on a visit to Washington, I called on the United States Senator from my State. He had an appointment with the President, and invited me to go with him to the White House. I was not well known at that time. I was very much embarrassed, and when I was introduced to the President I could find nothing to say. When we were leaving, the President shook my hand cordially, and said he was glad to have met me. I said, 'Mr. President, I am embarrassed. Are you?' Whereupon he laughed good-naturedly.

"I did not see General Grant again for about ten years. In 1880, when he returned from his trip around the world, I had become better known, and upon the occasion of a large reception given to him in Chicago, I was Chairman of the Reception Committee. When General Grant arrived at the reception, and was greeted by me, his first words were: 'Mr. Clemens, I am not embarrassed. Are you?'"

Very truly yours,

J. L. CHAMBERLAIN.

THE LETTER-BOX

PAWTUCKET, R. I.

DEAR ST. NICHOLAS: I want to tell you that I am very fond of you. Every month, when you come, I am the first to open the wrapper, even if I don't take you. My sister, Alice, has you come under her name. I always look at the advertisements first, then the letters, next the short stories, and, finally, the continued ones. I can't tell which story I like best, as I like them all. Many children whom I know take you, and they all just love you. My sister has taken you for three years.

In the summer we go where my mother went when she was a little girl. There are a great many ST. NICHOLASES there, and I love to read the old volumes. We are keeping ours and are going to have them bound.

I am interested in the "Stamp Page." I have collected over a year, and I have quite a few varieties.

I have never traveled much, but I have been to Nova Scotia three times. I have visited Digby, Yarmouth, Canard, and Cornwallis.

Wishing you a long and prosperous life, I remain your devoted reader,

JANET N. EATON (age 11).

CORDOVA, ALASKA.

DEAR ST. NICHOLAS: I always read the "Letter-box" but I have never read a letter from Alaska. I am spending a year in this odd country, my home being in Dayton, Ohio. It seems very strange in Alaska. The schools are what seem funniest. There are only two pupils in my class.

Cordova is a place of about six hundred inhabitants. It is often called the Copper Gate of Alaska. It is quite



"DOG-TEAMING AND SKEERING ARE GREAT SPORT HERE IN WINTER."

a place, for it is the coast terminus of the Copper River and Northwestern Railway, which runs out to the famous Kennecott copper mines. They are among the richest in the world.

The coast towns in Alaska are warmed by the Japanese Current. It seldom reaches below zero here. It is quite different from most ideas of Alaska. The Miles and Childs glaciers, those active wonders of nature, are forty-nine miles "inside" from Alaska. They are pronounced as beautiful as the glaciers of Switzerland. In winter all the wagons have runners put on in place of the wheels. Dog-teaming and skeering are great sport here in winter.

Turnips grow up here to the weight of about nine pounds.

The days drag like months until St. NICHOLAS comes and cheers us up. The stories I like best are "The Boarded-up House," "The Sapphire Signet," "On the Battle-front of Engineering," and "Saved by a Camera."

Your ever interested reader,

ROBERTA FLORY (age 11).

SPRINGFIELD, MASS.

DEAR ST. NICHOLAS: I have taken you for two years and am taking you now; so when 1916 passes away, I will have taken you three years. I enjoy you very much.

Among my favorite stories are "Saved by a Camera," and "The Sapphire Signet: or, The Lass of Richmond Hill," and "On the Battle-front of Engineering." I like "The Sapphire Signet" especially, and have sometimes wondered what the song called "The Lass of Richmond Hill" could be. In February I was promoted to the eighth grade, and in our music-books I

found "The Lass of Richmond Hill"! We have learned it now so that the class can sing it very well. It surprised me a great deal to find it in my music-book and to be singing the very song in class.

Thanking you, St. NICHOLAS, for the many happy hours you have given me. Yours sincerely,

CHARLES J. HILL.

SAN DIEGO, CAL.

DEAR ST. NICHOLAS: I like you very much—so much, that, when it gets to the twenty-eighth of the month, the first thing I ask Mother, when I get home from school, is, "Has my St. NICHOLAS come yet?" If it has n't, why there is nothing to do but wait till the next day. When you arrive, I just read and read; everything is so interesting.

I like "The Sapphire Signet" very much, only each instalment ends in such an interesting place that it is hard to wait for next time.

In summer I go to our ranch. It is called Ramon Vigil Ranch, and used to be an old Spanish grant. There are thirty-five thousand acres of rugged cañons and mesas. In the walls of the cañons are many old cliff-dwellings, and on the mesas there are many, many ruins of old Indian pueblos thousands of years old. All around these ruins are scattered, oh, so many pieces of pottery, and several arrow-heads. If we dig in the old burial-mounds, we find skeletons and jars, though there are many cracked and in scattered pieces, so we have to mend them together. It is very interesting work.

There are all kinds of animals—deer, mountain-lions, wildcats, everything. We are going to try to kill the mountain-lions and the rattlesnakes and make our place a game preserve.

I think that it is the best place I have ever been to. Oh, I forgot! The ranch is twenty-seven miles from Santa Fé, New Mexico.

Ever yours,

MARGARET POND (age 12).

PITTSBURGH, PA.

DEAR ST. NICHOLAS: I wrote you once before, but I write again to tell you how much I like you.

Several summers ago my brother was very sick, so we decided we would spend the winter in Bermuda. So, on December 13, 1913, with thirteen pieces of baggage, we sailed on the *Bermudian*, one of the fastest steamers belonging to the Quebec Steamship Co. In spite of so many 13's, we never had a smoother voyage before, and made the trip in record time. We had a cottage overlooking a pretty



KHAIBAR PASS, BERMUDA.

bay, and soon got settled and began to look around. Most people think the Bermudas are in the West Indies, but they are mistaken. They are a small group of islands about five hundred miles due east of Charleston, South Carolina. They are practically nothing more than a coral reef with a layer of soil covering it. The group contains about three hundred and sixty islands, eighteen of which are inhabited. The total area is only about twenty square miles.



LION ROCK

The population, which includes many negroes and mulattos, is a little over seventeen thousand persons, Hamilton, the capital, containing about two thousand.

No automobiles or motor-cycles are allowed here, transportation being made by means of boat, bicycle, or stage. All roads are of coral rock, which affords splendid riding. One of the photographs I enclose is of Khaibar Pass, a road cut through solid rock to lessen the grade of the hill it is going over. Following this road, it will bring you to Harrington Sound, at the other end of the islands. Another photograph shows

Lion Rock, on this same sound. There are many caves along the shores of Harrington Sound, which are noted for their stalactites and curious formations. Bermuda is noted for its lilies, great quantities being raised for export to the United States.

I might write a book about this land of sunshine and flowers.

Your most interested reader,

JOHN GIBSON.

DEAR ST. NICHOLAS: We think that "The Lass of Richmond Hill" is *enchanting*! But I grieve to say that you leave us in such a place that it is *maddening*! Please do not let an instalment end like this again: "I have concealed the sapphire signet in—"

Your true friends,

ELEANOR HOLMES
HELEN NICHOLS.

GUATEMALA CITY, GUAT.

DEAR ST. NICHOLAS: I live in Guatemala, where there is no basket-ball, nor tennis, nor boating, nor any of the sports you mention. But my brother and I go to a great big natural park which is surrounded on three sides by *barrancas* (ravines). They are about five hundred feet deep. Away down at the foot is a powerhouse which pumps water for the whole city, selling it at about one and a half cents a *tinaja* (a large earthenware jar). There are lovely swings farther up. They are fastened with chains. You can go very high on them. Overhanging them are many trees. Many times I go high enough to touch them with my head. Some people who stay there have a sweet little deer. The other day, when I was there, I went farther into the woods than I ever went before. There I saw some funny birds. Neither I nor my mother know what kind they are. They were white, spotted with brown, and had red beaks.

Your devoted reader,

SUE SPENCER WAY (age 11).

BOZEMAN, MONT.

DEAR ST. NICHOLAS: My sister and I have taken you for nearly three years. My mother took you when she was a little girl, too. We all like you very much.

We had the play of "Everychild" last summer, and they all thought it was very good. We had little programs, and it was printed in two newspapers about our play. We made five dollars and a half, and Christmas we got up a dinner for a poor family. We got them some presents, too.

Your interested reader,

MARY PATTEN (age 10).

LOWELL, MASS.

DEAR ST. NICHOLAS: I am writing to you to tell you how much I enjoy you.

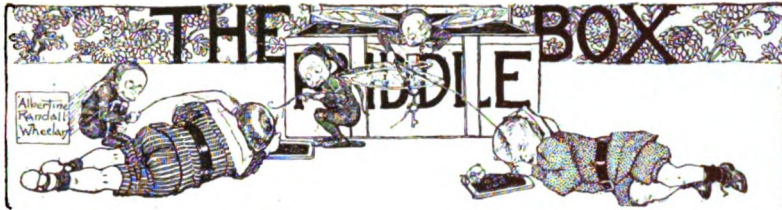
My father took you when he was a little boy and we have the old volumes. I enjoy reading the volumes just as much as I do the ones that I have now.

Some day I am going to send you a picture of some of the birds we feed. My father built a tray, and roofed it over so the snow would not cover up the food. Daddy put the feeding-tray up in a tree just outside our dining-room window. And when we sit down to the table they come and sit down to *their* table.

Daddy buys scratch-feed for them, and they eat ten pounds of it in a week.

Your loving reader,

ELIZABETH SMITH (age 11).



ANSWERS TO PUZZLES IN THE MAY NUMBER

NUMERICAL ACROSTIC. Cross-words: 1. Jocund. 2. Alloys. 3. Honest. 4. Dismal. 5. Lagoon. 6. Dimple. 7. Raccoon. 8. Trills. From 1 to 10, John Milton; 11 to 16, London; 17 to 28, "Paradise Lost"; 29 to 33, "Comus"; 34 to 41, "L'Allegro"; 42 to 48, "Lycidas."

BEHEADINGS. 1. F-red. 2. K-ate. 3. F-rank. 4. A-my. 5. W-ill. 6. M-aria. 7. N-ed. 8. V-era. 9. D-an.

WORD PUZZLE. 1, p; 2 to 3, hag; 4 to 6, Sally; 7 to 8, far; 9 to 10, ear; 11 to 13, dream; 14 to 15, yam; 16, t; 7, f; 4 to 11, sad; 2 to 14, Harry; 1 to 5, pal; 12 to 16, eat; 3 to 15, gleam; 6 to 13, yam; 10, r.

WORD-SQUARE. 1. Ochre. 2. Chain. 3. Haunt. 4. Rinse. 5. Enter.

DOUBLE ACROSTIC. Primals, Browning; finals, Florence. Cross-words: 1. Bailiff. 2. Raphael. 3. Orinoco. 4. Whimper. 5. Neptune. 6. Iberian. 7. Nomadic. 8. Gazelle.

TO OUR PUZZLERS: Answers to be acknowledged in the magazine must be received not later than the 24th of each month, and should be addressed to St. Nicholas Riddle-box, care of THE CENTURY CO., 353 Fourth Avenue, New York City.

Solvers wishing to compete for prizes must give answers in full, following the plan of the above-printed answers to puzzles.

ANSWERS TO ALL THE PUZZLES IN THE MARCH NUMBER were received before March 24 from Florence Noble and Florence S. Carter.

ANSWERS TO PUZZLES IN THE MARCH NUMBER were received before March 24 from "Allil and Adi," 11—Elizabeth Lee Young, 11—Frances Burrage, 11—John H. Levy, 10—Helen A. Moulton, 10—"St. Anna's Girls," 10—Alice Paulin, 9—Constance Miller, 9—Nancy Hough, 9—M. Platt and W. Walz, 9—Claire A. Hepner, 9—Marian Ansbacher, 9—Julia A. Coveney, 9—Edith Heyn, 8—Ellen W. Lothrop, 8—"Barnes Boys," 8—Sally Burrage, 8—Alice Baker, 8—Francis W. Bronson, 8—Helen Downes, 8—Orin Judd, 8—M. I. Fry and J. O. Avery, 8—H. A. Vance, 7—R. Kenfield, 7—W. Ashbridge, 7—F. H. Caten, 6—J. M. Pope, 6—C. Wood, 6—M. Otis, 5—J. MacAndrew, 5—A. E. Griffin, Jr., 5—A. S. Larner, 5—R. Scarborough, 5—P. and L. Putnam, 5—D. Maitland and W. Burgland, 5—B. Graham, 5—A. C. Peck, 5—C. Stow, 5—P. K. Kett, 4—L. Rhodes, 4—N. Page, 4—E. Hildebrand, 4—L. Leeson, 4—D. Hess, 4—W. Conover, 4—L. Stone, 4—L. A. Thomas, 3d, 4—I. F. Bartlett, 4—A. L. Scribner, 3—K. I. Gary, 3—C. E. Waddell, Jr., 3—R. W. Clarke, 3—M. E. Nash, 3—H. E. Bonell, 3—W. F. Martin, 3—P. S. Page, 3—K. E. Wagner, 3.

ANSWERS TO TWO PUZZLES were received from M. F.—E. N.—M. H.—L. B. C.—J. U.—E. S.—M. F.—B. R.—L. C. S.—M. Du B.—E. R.—S. H.—G. D. W.—C. S.—M. R.—M. C. S.

ANSWERS TO ONE PUZZLE were received from E. F. S.—M. W.—E. B. P.—L. C.—K. V.—N. T.—E. F. S.—D. B.—R. B.—E. H. T.—K. C.—K. E. McB.—B. G.—J. McL.—C. H.—L. C.—J. B.—M. C. C.—E. P.—M. A.—J. McG.—G. P. A.—E. L. G.—M. B.—M. K.—J. S.—H. C. W.—S. I.—B. G.—W. W.—V. S.—C. R. G.—R. C.—R. W.—D. K.—J. W. D., Jr.—B. L.—F. E. W.—J. H. T.—M. P.—C. K.—I. G.—H. C.—F. P.—L. B.—E. H.—M. A.—L. M.—E. W.—J. K.—A. C. R.—G. M.—J. H. T.—C. V.—N. C.—H. S. A.—L. S.—D. M.—E. W.—E. B.—A. B.—M. B.—F. J.—H. I. S.—E. T.—E. B.—G. M. L.—M. E.—F. D. P.—W. D. R.—T. A. B.—H. B. R.—H. J. T.—D. B. K.—T. N.—R. A.—J. W.—M. E. L.—E. H.—H. S.—K. D. P.—G. M. I.

AN "ANIMAL" DIAGONAL

ALL the words described contain the same number of letters. When rightly guessed and written one below another, the diagonal, beginning with the upper, left-hand letter, will spell the name of an industrious animal.

CROSS-WORDS: 1. A species of large monkey. 2. A sheep highly valued for its wool. 3. A South African wild ass. 4. An amphibious quadruped. 5. A carnivorous burrowing quadruped. 6. A hunting dog.

FREDERICK P. MAYER (age 12), *League Member*.

CHARADE

With many a careful *last*, the artist drew
His picture's *whole*; then laid it down and sighed.
Soon in despair he tore the paper through—
"It will not pay to rub it *first*," he cried.

MAX STOLZ (age 16), *Honor Member*.

DIVIDED WORDS

EACH of the words described contains seven letters. Example: my first four letters spell a domestic animal; my last four letters spell a wild animal. My whole is uncoined gold. Answer, bull; lion, bullion.

1. My first four letters spell to fret; my last four letters spell an aquatic bird found in the north. My whole is a narrow, tapelike fabric.

ILLUSTRATED ZIGZAG. Seven Pines. 1. Safe. 2. Hens. 3. Five. 4. Mice. 5. Pint. 6. Apes. 7. Ibox. 8. Ends. 9. Heel. 10. Plus.

DOUBLE BEHEADINGS. Decoration Day. 1. Ma-dam. 2. Tr-eat. 3. Ba-con. 4. Fl-oat. 5. Ac-rid. 6. Ch-air. 7. La-tin. 8. Tr-ice. 9. Blown. 10. Si-new. 11. Se-dan. 12. Fl-ail. 13. Ba-you.

TRIPLE ACROSTIC. Talma, oread, peace. Cross-words: 1. Top. 2. Are. 3. Lea. 4. Mac. 5. Ade.

COMBINATION PUZZLE. Primals, Taylor; diagonals, trowel. Cross-words: 1. Tackle. 2. Archer. 3. Yeoman. 4. Leeway. 5. Opener. 6. Reveal.

KING'S MOVE PUZZLE. Begin at 45. Marion, 45-38-31-23-15-8. Muriel, 16-24-32-40-39-46. May, 47-56-48. Maggie, 55-64-63-54-62-53. Maud, 52-61-60-59. Molly, 58-57-50-51-44. Mildred, 37-30-22-13-6-7-14. Marguerite, 21-29-36-43-42-49-41-33-34-35. Marie, 28-20-11-4-5. Marjory, 12-19-27-26-25-17-18. Mabel, 9-2-3-10-1.

2. My first four letters spell to gain by labor; my last four letters spell a cozy home. My whole is intent.

3. My first four letters spell a gem; my last four letters spell a row. My whole is prismatic.

4. My first four letters spell a frame; my last four letters spell a monarch. My whole is tormenting.

5. My first four letters spell a microbe; my last four letters spell part of a horse. My whole is relevant.

6. My first four letters spell a heroic poem; my last four letters spell to heal. My whole is one who is devoted to the luxuries of the table.

7. My first four letters spell ages; my last four letters spell certain. My whole is an obliteration.

8. My first four letters spell need; my last four letters spell parts of a piano. My whole are footmen.

9. My first four letters spell a thought; my last four letters spell an aid. My whole is in a utopian manner.

10. My first four letters spell above; my last four letters spell a musical abbreviation. My whole is a garment worn by workmen.

11. My first four letters spell nice discernment; my last four letters spell a plate of baked clay. My whole is tangible.

When the foregoing words have been rightly guessed, the initials of the seven-letter words will spell the pen-name of a writer.

WILLIAM PENN (age 13), *League Member*.

S^TNICHOLAS



JULY

1916



Pure as its whiteness suggests—refreshing in its cleansing qualities—there is more than ordinary satisfaction in the use of

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The Century Co. and its editors receive manuscripts and art material, submitted for publication, only on the understanding that they shall not be responsible for loss or injury thereto while in their possession or in transit. Copies of manuscripts should be retained by the authors.

In the United States and Canada, the price of THE ST. NICHOLAS MAGAZINE is \$3.00 a year in advance, or 25 cents a single copy; the subscription price elsewhere throughout the world is \$3.60 (the regular price of \$3.00 plus the foreign postage, 60 cents). Foreign subscriptions will be received in English money at 14 shillings, 6 pence, in French money 18 francs, in German money 14 marks, 50 pfennigs, covering postage. We request that remittances be by money order, bank check, draft, or registered letter. All subscriptions will be filled from the New York office. The Century Co. reserves the right to suspend any subscription taken contrary to its selling terms, and to refund the unexpired credit.

PUBLISHED MONTHLY

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THE CREATION OF A MASTERPIECE.
GILBERT STUART PAINTING THE FAMOUS WASHINGTON PORTRAIT.

MAY 25 1939

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How Washington Looked



It is safe to say that no face is better known the wide world over than George Washington's. We often wonder if the familiar profile on the postage-stamps is really a likeness. So perhaps it may be of interest to learn who the artist was and how the statue, from which the profile is taken, came to be made.

After our War of the Revolution had ended, Congress passed a resolution ordering the erection of an equestrian statue in honor of the victorious commander-in-chief; but like many similar resolutions, it was not acted upon. The legislature of his native State, however, appropriated "one thousand guineas to have his image carved out of the finest marble." Jefferson and Franklin, at that time in Paris, were accordingly charged with the commission, and at once placed it in the hands of Houdon, the most prominent and able "statuary" (or, as we say to-day, sculptor) of the time. Jean Antoine Houdon had gained in Paris the first prize for sculpture, and had worked for ten years in Rome. Busts of the most prominent men in France and full-length statues of Voltaire and others had placed him at the head of his profession. He was now in the

prime of life, being forty-four years old. Whatever he did bore the stamp of truth, and Americans should feel grateful for the splendid portrait busts he made, not only of Washington, but of Franklin, Jefferson, John Paul Jones, and Robert Fulton. When Jefferson solicited his services, he was engaged upon commissions for nearly every court in Europe, and it is said that he gave considerable offense at some of them upon finally agreeing to go to America, "risking his life in crossing the ocean to make a statue of a colonial rebel," as the empress of Russia observed when he asked to be released from several important orders she had already placed in his hands.

A copy by C. W. Peale of the portrait which he had painted of Washington had been sent to Paris for Houdon to follow; but he flatly refused to rely on such a work, telling Jefferson it would be absolutely necessary to see Washington himself in order to do justice to his art and his subject—a decision that delighted both Franklin and Jefferson.

To cross the Atlantic in those days of slow sailing-ships was a big and uncertain undertak-

ing. So, while Houdon was perfectly willing to take the risk, he required a certain sum of money should be given his parents and sisters in case of accident. This insurance on his life being arranged by John Adams, our minister to England, he sailed with Franklin



JEAN ANTOINE HOUDON.

to undertake the work, which he considered as promising to make the brightest chapter of his history.

In the meantime, Jefferson had written Washington that Mr. Houdon was coming "for the purpose of lending the aid of his art to transmit you to posterity. He is without rivalry in it,

being employed from all parts of Europe in whatever is capital." And he added that, not only as an artist but as a man, he would merit his good opinion.

To the legislature of Virginia Jefferson also wrote, telling them of "the glory it would be to have the work done by so great an artist, one who was entirely without rivalry."

On their arrival at Philadelphia Washington wrote Franklin that he would accommodate Mr. Houdon in the best manner he was able, and would endeavor to render his stay as agreeable as he could; while to the sculptor he wrote, "I wish the object of your mission had been more worthy of the masterly genius of the first statuary of Europe, for thus you are represented to me."

And so we see that the features of our greatest American were about to be handed down to posterity by the ablest sculptor of his time.

In Washington's diary for October 3rd, 1785, he writes that about eleven o'clock, after they were in bed, Mr. Houdon and his three young men assistants arrived, coming by boat from Alexandria.

During the sculptor's two weeks' stay, Washington sat for a bust that was modeled in clay, writing in his diary a full account of the method of mixing the plaster of Paris and the making of the molds, a process in which he was greatly interested. He also submitted to the unpleasant operation of having a life-mask made of his features in order to insure a perfect likeness. In

the presence of Mr. Madison exact measurements of his figure were made and full details of his uniform were noted to enable the sculptor to complete his work.

The clay bust was then left by the sculptor at Mount Vernon, where to-day it is the most highly valued of all of Mount Vernon's relics of the Father of his Country. But the life-mask and molds of the bust Houdon himself took to Paris, not trusting them to the hands of his assistants, "for," said he, "if they are lost in the ocean, I am determined to perish with them."

One day, during his stay at Mount Vernon, Washington was looking at some fine horses with a view to their purchase, but the high price asked by the groom in charge so incensed him that the man was promptly sent away. Houdon, who witnessed the transaction, saw, with an artist's eye, in Washington's pose and expression the very thing needed for his statue, and made a memorandum of it. On the 19th of October, Washington writes: "Mr. Houdon, having finished the business which brought him hither, went up Monday with his people, work, and implements in my barge to Alexandria to take passage in the stage for Philadelphia next morning."

The statue, according to agreement, was to be finished in three years, but was not completed until 1789. Jefferson saw the work as it progressed, and was enthusiastic over the likeness and characteristic attitude that the sculptor had caught.

The State Capitol at Richmond not being completed, it was not until 1796 that the statue was shipped, and in May of that year was received by the corps of artillery, infantry, and cavalry and escorted to the newly finished building with full military honors. It was placed on its pedestal in the rotunda, where it still stands—the image of our greatest American by one of the greatest sculptors of all time!



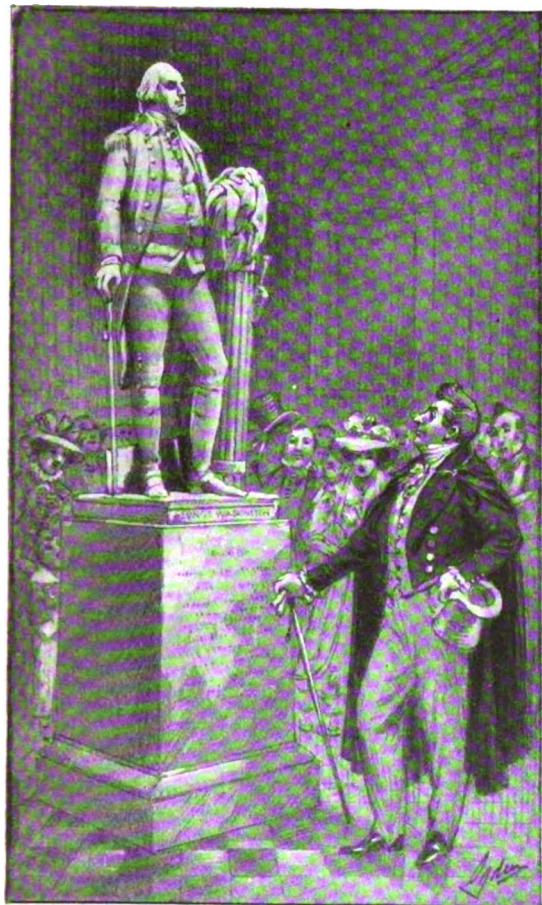
GILBERT STUART.

After a sketch made by himself in later life.

That it is an accurate likeness is beyond question, for the care and fidelity of such a craftsman as Houdon, knowing well that he would live by this work, insured success. Lafayette, on his visit to America in 1825, was taken to Richmond and went eagerly to the Capitol in order to see the statue, accompanied by a throng of people. As he stood silently gazing up at the image of his old commander-in-chief and friend the tears

came to his eyes, and he said, "That is the man himself; I can almost realize he is going to move!"

Many copies have been made from this original marble statue; one of plaster is in the Statuary Hall in the Capitol at Washington; South Carolina has one, while New York has one, which was erected by the school-children of the



LAFAYETTE BEFORE HODON'S STATUE OF WASHINGTON, RICHMOND, VIRGINIA, 1825.

city and stood at first on Riverside Drive, but is now in the Metropolitan Museum of Art. With his head elevated, his figure erect, one hand on the bound fasces indicating the Union, and dressed in the uniform he wore when resigning his commission, the greatest American stands as he was in life, for each generation of Americans to see and know as long as our republic, that he did so much to establish, shall last.

During the interval of six years between the close of the Revolution and his inauguration as President, Washington was besieged by many

artists of more or less note and ability to sit for his portrait. Some of the results of these efforts have their admirers and are valued by collectors, but it was not until Gilbert Stuart painted the famous head known as the Athenæum portrait that Washington's features were truthfully shown on canvas.

Born in Rhode Island in 1756, Stuart had gone when but a poor youth to England, where, having struggled hard to win his way in the world, he at last rivaled Sir Joshua Reynolds and Gainsborough as a portrait painter. Love of his native land and admiration of Washington, upon whom the attention of all Europe was fixed, created a great desire on Stuart's part to paint his portrait, a desire that grew to be the most earnest wish of his life.

In 1793 he accordingly returned to America, settling for some months in New York, where he gave sittings to numerous prominent people for their portraits. His reputation was well known, and his work in great demand. Indeed, the most highly prized heirloom in many an American family to-day is the portrait of an ancestor painted by Gilbert Stuart.

In 1794, while Congress was in session in Philadelphia, then the national capital, Stuart journeyed thither with a letter of introduction to President Washington from John Jay. In writing of her father, Jane Stuart says that soon after his arrival he called upon the President and left his card and the letter. After returning from a visit he had made in the country he found a note from Washington's secretary, Mr. Dandridge, inviting him to pass that evening with the President. On his arrival at the house he was ushered into a room which he supposed was an antechamber, but to his surprise he found himself in the immediate presence of the great man. Although accustomed to the first society of Europe, and possessed of excellent manners, he afterward declared that he was so intimidated as to lose, for the moment, all self-possession. But the President coming forward and addressing him by name, he soon recovered himself and entered into conversation,—an art in which he was well versed,—the President then introducing him to the company.

Early in the next year Stuart painted Washington's portrait for the first time, but his admiration and respect for his sitter were so great that he felt ill at ease, and, being greatly dissatisfied with this first effort, destroyed it. His second attempt was more successful and was a full-length, life-sized canvas, painted at the request of a Mr. Bingham of Philadelphia. It was presented to Lord Lansdowne, and sent to Eng-

land. This portrait has changed owners several times since it left Stuart's easel in 1795, being on one occasion disposed of by a lottery, where forty tickets at fifty guineas each were sold. The lucky purchaser was J. Delaware Lewis,



WASHINGTON THE COMMANDER-IN-CHIEF, 1783.

who loaned it for exhibition at our Centennial Exposition in 1876, where, curiously enough, the portrait of our first President, by an American artist, took the most prominent place in the English loan collection. At the close of the exhibition it was returned to its owner in England, where it still remains.

We now come to the most famous of all Stuart's Washington's paintings, known as the Athenæum portrait, showing the head only, with the background and coat unfinished. As the artist at

this time had all the orders that he could possibly fill and was overrun with visitors, he gave up his Chestnut Street studio and moved to Germantown, then a near-by suburb, where he turned a barn standing in the rear of his dwelling-house into a "painting room." Having become better acquainted with the President, he had regained his self-possession and felt a desire to associate his own name with that of the Father of his Country by giving to Americans a faithful portrait of him. It was while he was living in that interesting old village that the first President visited the barn-loft studio, and, in his black velvet suit and lace ruffles, sat while the painter created the work that is to-day considered the "national standard" likeness of Washington.

During the sittings of the President and Mrs. Washington (for her portrait also was painted about this time) many of the distinguished men and women of the day visited the studio. Miss Elizabeth Parke Custis, one of Mrs. Washington's granddaughters, was a great enthusiast upon the subject of this Washington portrait. She frequently went about with the "General," as she called him, and, whenever she could find opportunity, would accompany him to the studio. In later years she told the painter's daughter that she was present during many of the sittings and had seen the likeness grow under the painter's hand. This portrait and that of Mrs. Washington were painted with great care, and the story is that, when near completion, Stuart said that it would be of great importance to him to keep the originals, to which Washington replied, "Certainly, Mr. Stuart, if they are of any consequence to you; I shall be perfectly satisfied with copies from your hand."

The copies ordered by Washington having been delivered, he called upon Stuart to express Mrs. Washington's and his own perfect satisfaction upon the result, a pretty sure proof of their truthfulness, coming from such a man as Washington. The originals, with their unfinished costumes and backgrounds, were retained by the artist as long as he lived, and the many copies for which he received orders were made from them.

This portrait of Washington was painted, we must remember, in his later life, ten years after Houdon made his statue, and, as in that case, it was a true representation of the man at that period of his career. The painter was satisfied with his work—he was, in fact, proud of his success. On being asked for his candid opinion about the truthfulness of the portraits and busts of Washington made at different times, he replied: "Houdon's bust came first and my head of him next. When I painted him, he had just had

a set of false teeth inserted, which accounts for the constrained expression so noticeable about the mouth and lower part of the face. Houdon's bust does not suffer from this defect. I wanted him as he looked at that time."

After Stuart's death in 1828 these two portraits were sold, and in 1831 presented by the Washington Association to the Athenæum in Boston, where they hung for many years. They are now among the most treasured objects of the Boston Art Museum.

The placid look, the powdered hair, and the straight lines of the tightly closed lips of the "Athenæum" portrait have been familiar to all of us from childhood; from the walls of our classrooms, in our school histories, on bank-notes, and in countless places this "national standard" is seen. Indeed, it may be called the "Household Washington." Like all of the portraits painted by Stuart, it is truthful, or, as an artist would say, "convincing"—a masterpiece, in fact, by which the artist's wish has been fully realized, for the name Gilbert Stuart is inseparable from that of George Washington in the history of portraiture.

When Washington took command of the army at Cambridge in 1775, he was in the prime of life, forty-three years old, over six feet tall, robust, and as straight as an Indian. Dr. Thacher, an army surgeon, on seeing the general for the first time, wrote in his journal: "His Excellency was on horseback and in company with several military gentlemen. It was not difficult to distinguish him from all others; his personal appearance is truly noble and majestic, being tall and well proportioned. His dress is a blue coat with buff-colored facings, a rich epaulette on each shoulder, buff underdress, and an elegant small sword; a black cockade in his hat." This was a description that applied to the commander-in-chief as John Trumbull painted him. Trumbull had been an aide-de-camp to Washington in the early part of the war, and certainly was familiar with his appearance as a soldier. When in later years he followed art as a profession, it was natural that his knowledge of the scenes and men of the Revolution should lead him to become a historical painter. His portraits of Washington are interesting as showing how he looked and dressed during the war, the face being younger and his hair slightly powdered. That Washington wore a wig is a mistaken idea of many people. The hair in that day was worn long at the back, and either wrapped with a ribbon in a queue, as was the military fashion, or gathered in a silk bag with a big rosette. Powder was used slightly, as Trumbull shows, or in profusion, as in Stu-

art's portraits. During the years of his Presidency, Washington, on state occasions or at his receptions, would appear in a suit of black velvet, with a satin waistcoat, silk stockings, and the silver handled dress-sword, in a white leather scabbard, now exhibited at Mount Vernon.



WASHINGTON THE PRESIDENT, 1789.

In his masterly "Life of Washington," Senator Lodge says:

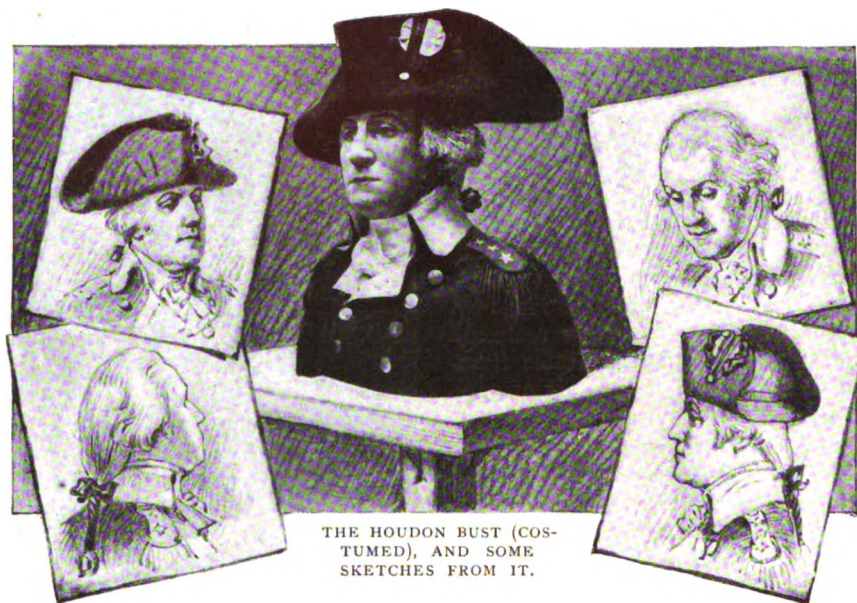
We will never part with the picture drawn by a loving hand of that stately figure clad in black velvet, with hand on the hilt of the sword, standing at one of Mrs. Washington's levees and receiving with gentle and quiet dignity, full of kindness but untinged by cheap familiarity, the crowd that came to pay their respects. It was well for the republic that, at the threshold of its existence, it had for a President a man who, by the kindness of his heart, by his good sense, good manners,

and fine breeding gave to the office which he held and the Government he founded the simple dignity which was a part of himself and of his own high character.

It is to this epoch that Stuart's portrait particularly applies, and we may feel confident that, in it, we truly see our first President. It has been the author's privilege to draw or paint the face and form of Washington on many occasions,

and in order to be as accurate as possible, he has had one of the busts by Houdon fitted with a cocked hat and uniform, the latter copied from the original in the National Museum at Washington, so a likeness can be secured from any angle or in any light. The effect is surprisingly real, indeed, as Lafayette felt when he first saw the statue, one can almost believe he is going to move.

H. A. Ogden.



THE HOUDON BUST (COSTUMED), AND SOME SKETCHES FROM IT.

THE SPARROW

BY ABBIE FARWELL BROWN

LITTLE bird of dusty brown,
Why do you stay here in town,
In the noise and dirt and heat
Hopping in the ugly street?
Other songsters choose to go
Where the grass and clovers grow,
Where the dew is on the hill
And the shady woods are still;
Where the baby rivers skip,
And the cool green mosses drip.
There to-morrow I shall be!
Sparrow, do you envy me?

Saucy bird, alert and quick,
Lingering on stone and brick,—
Little children linger too,
Who perhaps are fond of you;

Pale and pitiful to see,
Sick and sorry too, maybe.
They can dream but never go
Where the ferns and daisies grow.
All the sultry summer through
They will hear no bird but you,
Cheap and common, sharp and shrill,
Chirping, chirping, chirping still,
Picking bugs and crumbs and things.
Yet—you have the gift of wings;
They can see you dart and fly
Free and high to tree and sky,—
Only little comrade given
Who can bring them news of heaven!

Sparrow, when I go away,
Is that why you choose to stay?

THE PRIDE OF THE BERESFORDS

BY HAZEL ALMA MITCHELL

MARION BERESFORD, coming down the steps of the chemistry laboratory, glanced in surprise about the deserted campus. It had been a scant ten minutes since the ringing of the bell that dismissed the last of the afternoon classes; but the campus seemed strangely forsaken. "I'm glad I stayed to finish that sixty-third one, even if everybody has gone off. I won't have the chance to stay to finish many more experiments," she said to herself as she took a short cut across the soft, springy turf and stood before the gray stone chapel. There she stopped a moment to look up at the high spire as it rose above the tallest of the elms. "How we all love it!" she whispered, as her gaze rested on the long stretch of the Raflear campus. "And how we are all going to miss it—each in a different way, too!" Marion stood hesitatingly as she watched the moving shadows which the elm branches cast on the smooth, white walk. The tennis tournament and the lure of the Half-way House, with the refreshment it always offered, had drawn away the girls; but neither seemed to appeal to Marion. She brushed the little sweat-curls away from her face. It had been unusually warm in the laboratory, and the cool breeze lapped her cheeks with refreshing vigor. It was a pleasure just to stand in the May sunshine and ponder on the best way in which to spend the time before dinner. And the sensation of being really alone was as delightful as it was unusual.

Far up, back of the steep, abrupt hill, which had been christened Mount Benjamin and later Little Ben, the sun hung like an enormous gold ball, mellowed and softened by the clouds about it. On the summit of Little Ben the tall pines stood in bold relief against the western sky. Down beneath the tall, straight outlines of the pine-trees, Marion knew that her own little fir-tree stood. And all at once she longed to see it again and to sit on the shelved rock at its roots. She changed the four note-books—she was carrying three of them for girls who had wished to go unhindered to the tournament—from her right to her left arm. And suddenly she felt very tired. Thursday was always her hardest day, and this one had been especially crowded. All of its work seemed to settle wearily down on her shoulders like a load. In a panorama it all passed before her: the disappointment at the loss of the cool, morning plunge because Phyllis had overslept and kept the tub five minutes later than

usual; the hurried copying of the note-book she had lent to the twins because "Hunky" had upset a bottle of fountain-pen ink over its last eighteen pages; the forenoon filled with recitation; the afternoon of strenuous work at the laboratory.

She glanced at her wrist-watch. Only four-forty-five! A whole hour of precious leisure was



"I 'LL NEVER BE ABLE TO THANK YOU ENOUGH!"
(SEE NEXT PAGE.)

hers. She started forward briskly. "I'll watch the tournament from the mountain!" she thought, in silent challenge to the two white-clad figures

hurrying along the eastern end of the campus toward the tennis-courts. "And I'll read my letter again," she added, as she patted the front of her blouse reflectively.

She had skirted the dormitories and was passing the little clump of birches by the hockey-field when the inevitable happened. Dorris Shields came running excitedly toward her.

"Oh! Marion, you're just the one I'm hunting for!" she called, her breath coming in short little puffs after her rush from the senior dormitory.

Marion waited with patience for some word that would give a clue to the situation.

"Whatever is the matter, Dot?"

"Marion," Dot's tone was tragic, "I'm in the greatest pickle ever!"

The other looked in surprise at the flushed and worried face, so out of keeping with the dainty light frock. "What is the matter, Dot?"

"It's my very worst predicament this semester. You know that Professor Cameron's wife is entertaining that missionary from China," explained Dorris.

"From India it is, Dot. Yes?" prompted Marion.

"Well, Mrs. Cameron telephoned to ask me if I'd help with the serving. Of course I said I would. That was more than a week ago. And I forgot all about it. I did make a note of it in my reminder-book; but then I forgot to look in the book!" Dot's words tumbled over each other in headlong haste. "And just ten minutes ago, as I was going over to the match, Alice reminded me of it by saying that this missionary was the tennis champion of her class."

Marion essayed comfort. "Well, you'll be all right, Dot. There's plenty of time now. The reception was n't to be until half past four; and those things never begin on time, anyhow. You look just lovely, dear."

But Dorris threw to the winds the proffered consolation.

"That is n't the trouble at all! I can get there in time all right—as far as that goes. But I've got to pass in my report of Dean Shelton's lecture last Monday—and I have n't copied it! 'The Budget' goes to press to-morrow, and all material must be in before six-thirty to-night!"

Two little worry-frowns appeared in Marion's forehead. The fact that Dorris was in trouble of some sort did not come as a very great surprise; but the way in which to meet Dot's difficulties always had to be an original one. Marion looked thoughtful. "I did n't go to that lecture, so I don't know what she said. But I'll help you in any way I can. Do you suppose I could make enough out of your notes to do any good?"

Dorris seized Marion's free arm and hugged it ecstatically.

"Marion, you're a darling! I'm sure you can! Just write it any way you want to as long as you get a half-column out of it." She pushed a black note-book into the other's hand. "I'll never be able to thank you enough! They're all in there—along about the middle. You've saved my reputation, dear!" She hurried off, stopping only long enough to call over her shoulder, "Just give them to Rita Anderson."

For a full moment after Dot's hurried departure Marion stood in thought; then she once more faced Little Ben. "It's lucky I've got my fountain-pen with me!" she exclaimed, as she started across the hockey-field. "I can copy it just as well up there as anywhere. Better, too," she said, as an afterthought; "it will be quieter." With the added note-book in her arm she walked on briskly between the twin maples and on up the steep path that led to Little Ben's summit.

She was nearly half the way to her fir when the inevitable again happened. Down under a pine, her head bent low in her hands, sat a little dark-haired heap. Marion's step quickened as she noted that it was Pauline Hilton, her own special charge in her sister class. If Pauline had not seemed so troubled, Marion might not have stopped; but something in the discouraged attitude of the little figure made a peculiar appeal to the girl with the note-books. "Hello, little soph of mine!" she called out gaily. Then, as she dropped comfortably down beside her, "What's the trouble, Pauline?"

The dark head lifted, and two tear-red eyes looked into Marion's blue ones as a limp hand pointed to a green book and the sheets of paper covered with figures.

"Oh!" Marion moved closer. "Is that all?"

"It's—it's enough," the little sophomore sobbed. "I—I just h-hate it!" Then her tone grew more forceful. "Yes, I do. I just *hate* it!" She pushed the green book so vigorously that it stood on end for an instant and then rolled in a zigzag line down the path. "I wish now that I had n't taken it this semester; but Father thinks that every girl ought to take mathematics—and so I did it to please him."

The same little vertical worry-wrinkles puckered themselves in line on Marion's forehead. She, too, looked hopelessly after the rejected green book and the scattered papers. Pauline's sobs were becoming deep and regular as she burst forth: "It would be dif-different if I had n't stu-studied—but I h-have! I've worked two whole hours on one ex-example, and I—I don't know how to d-do it at all."

Marion was still frowning. "I wish I could help you, Pauline. I do wish I could; but I can't remember a thing about math. I hated it ten times worse than you do. I just got by in my freshman year, and I would n't take it at all after that." She paused thoughtfully. "I do wish I could help you!"

And she 'll make you understand. It will be just as plain as A-B-C after Bernice has explained it. I know she is in her room, because she strained her ankle yesterday and can't go out. She is in twenty-six—just three doors below my room. You 'll find her all right." Marion seized a loose sheet of paper and hurriedly wrote:

Dear Bernice,

If you will help my little soph with her math., I 'll mend every one of that heap of stockings you were showing us last night. I know you can make her understand it.

MARION.

With relief and gratitude the little sophomore took the note and picked up the despised book. She was ignorant of the gigantic heap of stockings, and she could not appreciate the price paid for her deliverance; but she did know that the senior who had never yet failed her had once more brought about her salvation.

Alone once more, Marion started on. Time was rapidly passing, and she must hurry as fast as the steep and rocky path would permit. The note-books bothered, too, since she needed both arms free, especially in climbing the last boulder, which lay directly beneath her own fir-tree.

At last, flushed and breathless, she stood at the foot of the stunted fir-tree that she had come to regard as her very own. The dwarfed, but sturdy, tree stood some little distance from the summit of the miniature mountain and on the north side, which presented the most steep and difficult climb. The main-traveled path of ascent to Little Ben branched off to the right a few hundred feet below the cliff in whose crevices the fir had found life. On one side of the tree the heavy green branches grew thick and close together from the ground to its tip; but on the other side the lower branches nearest the ground had been broken off close to the trunk. No new shoots had ever taken their place, and in

time the healing sap of the vigorous tree had poured out over the wounds, leaving the trunk smooth and bare. Here it was that Marion always turned her steps when alone she climbed Little Ben. The fact that not one of all the girls with whom she frolicked, studied, and lived knew of the retreat lent a sort of romantic glow to each visit. She had received the secret of the fir's existence when, as a freshman, she had been



"'HELLO, LITTLE SOPH OF MINE!' SHE CALLED OUT GAILY."

Pauline drew her wet handkerchief across her eyes. "And there 's a quiz next week, and I don't know how I 'll ever do a thing in it. I don't understand these at all!" Evidently Pauline was relieving her feelings by confession.

Suddenly Marion's face was shining. "I know what I can do, Pauline! Don't you cry a single tear more. I 'll just send you down to Bernice Hartford. She can do *anything* in mathematics.

the "little sister" of Ruth Temple. Marion's college sister had been very dear to her, and something of Ruth's strong and quiet spirit always seemed to descend upon her from the branches of the tree they had both loved.

Marion glanced lovingly at the retreat as, cool and fragrant, it welcomed her. It was not often that she could find the opportunity to steal away alone to its branches; and especially of late her visits had been widely separated. But the little fir understood. It was when snuggled in its arms that she had chased away her little worries and had solved her greatest problems. All through the four years of college life down to now—their termination—the fir had remained faithful. It knew every disappointment and every joy of her college course. And the little dwarfed tree knew more than that, too. It even knew all about the Beresford pride. In fact, the fir was the only one in all the big, busy college world to whom Marion had ever been able to confide that secret. No one else appeared to have any time to hear of such an abstract and removed thing. And most certainly they would never imagine its existence without being told. But the stunted fir had had time and had understood. It realized that all the Beresfords had done great things; that the women of the house had been no less resourceful than beautiful, the men no less strong in character than in brawn; in short, that "the pride of the Beresfords" was no idle phrase. And it knew that all the dreams that the tall, blue-eyed girl had dreamed beneath its branches had been inspired, animated, and colored by this same pride. But the dwarfed comrade never betrayed confidences.

Marion threw the note-books down on the patch of short green grass with a grateful sigh as she seated herself in her favorite attitude, with her feet braced against the jutting head of the cliff and her back against the tree-trunk. She stretched her arms out on either side until her fingers rested on the prickly branches. "You dear little homely chum!" she whispered. "I've got to leave you before long now. But I'll never forget. Never!"

Then she glanced down upon the campus as it lay stretched out beneath her. Here and there, through the verdant tree-tops, she could see the red of bricks and the gray of stones that marked the halls she loved. Out on the great eastern square that indicated the tennis-courts were patches of white and color. Evidently the tournament was in full swing.

She gazed for a few minutes at the darting, animated specks of white that represented the players. Then she remembered. "My letter!"

she exclaimed as she drew out the oblong envelop from the front of her blouse. Her eyes rested lovingly on the pages which she had read but once. The letter was in her father's handwriting. It was not long, for she read it through twice in a few minutes. And each time, as she read the last paragraph, the two little vertical frowns appeared.

"Your great-aunt Courtney Beresford is with us," the lines ran. "She plans to stay until commencement time so as to travel with us to Rafelear. She is the same grand, stately dame as ever. She told me to write you that she knows by this time you have won the Greek honor and so will have the leading part in your play. She finished by quoting the phrase which you of course remember, 'It has always been the pride of the Beresfords to do great things.' Your mother will write soon."

The letter fell unnoticed into Marion's lap as the tears started in her eyes. "And I shall have to write home that I did n't get even second—or third—or fourth—or fifth!" She repeated the words slowly and emphatically as if to better realize their somber import. "I've waited almost a week now before telling them. I shall have to write to-night." She glanced sadly at the green boughs about her. "I—I don't mind so much for myself. I know every time that I'm not going to win; but I can't make any of them believe it. Every year that I've been here at college Aunt Courtney has said the same thing—and every year I've disappointed her and Father and Mother. The essay contest, the prize declamations, the scholarship medal, and now the Greek honor—everything has gone to somebody else. Not that I've deserved them," she explained carefully to the little black bug crawling over the letter. "I have n't really deserved any of them. Every one of them was awarded fairly. It's only that I've had to write home and disappoint them so many times—and all because I'm a Beresford!"

Tears in Marion Beresford's eyes seemed absolutely impossible, and every girl in Crantis Hall would have been shocked and dismayed could they have seen her. Perhaps some realization of this crept into Marion's mind, for she addressed herself sternly, "You, a senior, and crying like this!"

The sight of Dot's note-book aroused her to action. Resolutely blinking back the tears, she picked it up and began to search for the notes on Dean Shelton's lecture. German notes on "Faust," a list of irregular French verbs, trigonometry formulas—everything was there, apparently, except the desired notes. At last, however, she found them—scarcely half a page of hastily written, irregu-

lar lines. She glanced in dismay at the loose, disjointed sentences, the single isolated words, and the underlined phrases. To Dorris herself they might have recalled the entire talk; but to Marion, who had not heard the address, they seemed to present meager possibilities. With no

Then she spoke of the last of these lectures, which had been given on the previous Monday and had been called, "The Great Little Things." She finished by emphasizing and elaborating the few striking and underlined comments which Dot's scanty notes had furnished.



"'YOU DEAR LITTLE HOMELY CHUM!' SHE WHISPERED."

conception of what the main outline of the speech might have been, and with very little idea of its treatment, she set herself to work. The half-column in the college weekly must be filled. She began the article with an explanation of the dean's purpose in giving the series of talks entitled "What Some College Women Lack." She mentioned the great interest which they had aroused among both the faculty and student body.

As she re-read the article, preparatory to copying it, the subject more and more interested her. "I wonder what some of the 'great little things' were that the dean talked about. I wish I'd gone to hear it," she mused as she copied. "Why didn't I go, anyway? I was intending to." Marion searched her memory for a possible reason for her absence. Then she suddenly recalled it. "I know now. That was the day of the sophomore-freshman volley ball-game, and I kept score for Mary Huskins while she went to the dentist's."

After the article was copied she picked up her own German note-book. Five pages still remained to be copied because of the disastrous ink-blot. "It's lucky there was n't much ink in the bottle," philosophized Marion. "Poor 'Hunky' is always spilling something. She can't help it." The stubby fountain-pen chased smoothly over the pages as the shadows on the campus grew longer and longer.

It was half past five when she glanced at her watch. "My! I'll have to hurry!" she exclaimed, hastily rising and looking about her.

Over at the eastern end of the campus the spots of white and color had disappeared, and the deserted courts gave evidence of the close of the finals.

Along the walks, where the heavy foliage did not hide them, groups of hurrying girls could be seen moving toward the dormitories. Through the darkness of the pines the west shot its glowing color and light. Every bough of the pine on Little Ben's very summit seemed tipped with gold. Marion's glance fell back to the fir by her side and rested lovingly on it. "Oh, you dear old stunted thing!" and she buried her face in the

spicy branches. "We—we have n't done the great things at all—not any of them. And the little things! We've always been doing them; but they were n't the really important kind, I'm afraid. I just know they were n't the 'great little things' that the dean meant." Once more the tears were very near the surface. "I—I'm afraid, chum of mine, we'll have to admit that the pride of the house of Beresford has fallen."

The next instant she stooped to pick up her letter, papers, and books, while she faced the downward path. With the weight of the books on her arm, something of her usual buoyancy returned. She waved a friendly gesture to the halls beneath her. Her voice was once more gay as she explained, "I'll just leave this report in Rita's room as I go by." And she raced happily down the path.

THE huge amphitheater, constructed on the low and gently rising slope of Little Ben, was aglow with life and color. Many of the seats in the circular tiers were already filled; while just outside the rustic gates were hundreds more of the relatives and friends of the members of Raflear's graduating class. Long rows of colored, but subdued, lights twinkled down on the benches. The ushers, clad in flowing robes of softest green, flitted among the guests like sylphs of the wood. Down behind the green latticed screen, in front of the stage in its setting of dark boughs, the Raflear orchestra was playing all the old and the new Raflear songs. Hearty calls of welcome and glad greetings came from the scattered groups of alumnæ; exclamations of surprise and commendation from those who were to witness their first Raflear senior play. At the ends of the benches on the grass beves of girls in white, with sashes and ties of their class color, were laughing and calling to each other. And everybody seemed to be telling everybody else that never had a larger audience filed in through the gates, never had an orchestra played in better accord, never had the amphitheater looked lovelier;—never, indeed, had a Raflear senior play had a more perfect setting or a more propitious beginning.

On the other side of the green curtain and in the improvised dressing-rooms all the excitement and confusion characteristic of an amateur performance held sway. Those having the least important parts equalized matters by becoming the most excited. The only calm spot in the place seemed to be the corner where the coach was making up the characters in order of their appearance. In the midst of it all Marion Beresford worked with quick, trained fingers. She

had dressed in her own room, and under cover of a long raincoat had slipped in at the rear entrance early. The relative unimportance of her rôle gave her abundant opportunity to help others. She turned from arranging a water-sprite's scarf to answer Helen Sawyer's troubled inquiry with the assurance, "Of course you'll do all right!" When she had fastened a troublesome clasp and tied a girdle she paused a moment to peep out through the screens, just in time to see her family party ushered into seats near the center front. For just an instant her eyes were very sober at the thought of all their dreams for her and her own silent rôle. Then once more she was too busy to remember.

"Oh, Marion!" No less a personage than *Aphrodite* herself stood before her in piteous appeal. "Will you see if you can make these plaits come right? Do they all lie toward the back or toward the front?"

Marion laughed outright. "Neither, Goddess of the Sea! One faces front and the next back. See? They're box-plaits and are far too complicated for any goddess to understand," she explained, as the spangled folds of cheese-cloth assumed their proper positions.

Time passed all too quickly in the busy dressing-rooms, and Marion was just pinning the quiver of arrows to the robe of *Artemis* when the first warning call came from the coach. Outside there was a momentary lull in the music. Then the orchestra glided into a subdued and suggestive pastoral theme. In the wings there was the last hurried flutter of preparation; then the players stood in line.

The music became even softer; an animated, but suppressed, excitement vibrated in the air; those on the benches leaned forward in tense expectancy; the green curtain trembled—then quickly rose. A whispered exclamation of surprise and wonder swept through the crowded amphitheater. Every one, acting on the same impulse, leaned forward in order better to appreciate the vision of Arcadian loveliness before it should vanish. For there was something in the sylvan beauty of the scene that seemed too mystical to be more than transitory; and while it fascinated, it baffled all analysis.

Deep, dark forests of spruce and hemlock seemed to stretch back as far as the eye could follow. Winding paths traced their way through the cool depths. Delicate, feathery ferns lifted their soft green branches to the gently stirring breeze; while here and there many-tinted flowers seemed to bloom in their native haunts. At one side, a gleaming crystal grotto invited the nymphs, who could already be seen in the distant forest,

to its deep recesses. On the other side, a fountain of purest white marble poured its sparkling waters into the coral-tinted pool beneath. And over the whole shone a softened, moonbeam light.

From the seclusion of the wings Marion looked out upon the familiar loveliness of the most elaborate scenic effect that any Raflear class had ever attempted. Every one knew that the idea of producing the woodland scene had been Beth Merrill's. Only a genius could have conceived such a fantasy. But probably no one—least of all Marion herself—realized to whom belonged the praise for the infinite pains in detail which had made possible the perfect simplicity of it all. She knew the weakness of every pasteboard fern and tissue flower. She knew just where were hidden the electric fans that furnished the woodland breezes, and she smiled now as she recalled how difficult it had been to secrete them. The frailty of the crystal grotto and the charm of the fountain's sparkling waters were open secrets to her. And she gloried in it all. How wonderful to have a share in so great a thing! Even her own small rôle in the *Pan* dance seemed suddenly magnified and raised to its true importance.

The play moved on with all the stately dignity and grace which the coach had desired. The players and the setting were in such harmony that the effect was perfect.

It was in the last part of the last act, just after the *Pan* dance, that the unexpected and unusual happened. It happened as such things often do, very quickly and with very few realizing it. The people in the seats knew scarcely anything of what was occurring, and the actors themselves knew little more. There was a muffled explosion, seeming to come from the wings; a bursting forth of heavy and oddly suffocating smoke; and the stage was suddenly bereft of its moonbeam glow. For a single instant it was in complete darkness. Then it stood revealed again in the full glare of the electric overhead lights. There was nothing more. The smoke drifted off into the night air, and the players went on with their lines.

Ten minutes later the curtain dropped on the final scene and the actors rushed into the dressing-rooms, while the audience waited for the crowning event of the evening—the announcement by the senior president of the class statistics.

There was more delay than usual. Some of those in the rustic benches had begun to wonder if the sudden puff of smoke could have presaged any misfortune, when the curtain again rose and Muriel Meredith, the senior president, stepped

forward. To those who knew her best, Muriel seemed paler than usual; but she stood tall, erect, and graceful—the pride of the graduating class.



"OUR MOST BEAUTIFUL GIRL—PHYLLIS BARTON."

All was hushed in expectation as she began to speak:

"Friends of Raflear College: You will, I hope, pardon this slight delay. Before I announce the class statistics I must explain that the disturbance which just occurred was caused by the explosion of a phosphorus-light which," she tried to smile, "was producing for you the moonbeam effects."

If it had not been for the prompt and thoughtful action of one member of our class, it—it is horrible to think of what might have happened." She paused for an instant to steady her voice before adding, "Her act saved at least one life and probably more."

That was all the explanation that was given. Many felt that there should be more. They



"A TALL, BLUE-EYED GIRL IN A RAINCOAT."

wished to see the heroic senior—at least to know her name. But even this desire was forgotten as the president held up the roll of parchment on which was written the result of the secret balloting for the class statistics.

Muriel began to read the formula of introduction to this—one of Raflear's time-honored customs. Then she reached the lines for whose import all were so eagerly waiting. "Our most beautiful girl—Phyllis Barton." There was a moment's pause, and Phyllis, with a half-shy, half-wistful smile, stepped forward from the wings and took her place by Muriel's side. The applause which followed was cut short only by Muriel's next sentence, "Our most talented girl—Emily Cox." From down in the orchestra a little, dark-

haired girl hurried up to the stage with her violin still in her hands. "Our cleverest girl—Beth Merrill," came the president's voice; followed by the last announcement, "Our most intellectual girl—Harriet Judkins." At last the four girls whom Raflear's graduating class had most highly honored stood in line. Cheers from groups of under-classmen, clapping of hands from the audience, and proud glances from relatives and friends greeted them.

It was then that the president stepped a little farther forward. "And now I have another announcement to make. Old Raflear's customs are very dear and sacred to us all, and we never break them except to strengthen them. For many years, in this spot and at this same time, four girls have been honored by their classmates. We, the present graduating class, have one more honor to bestow. We to-night initiate the custom of adding to the four honors a fifth one, namely, the honor of being the best-beloved girl of the class, the only stipulation being that any candidate for such honor shall be elected by a unanimous ballot. And may all coming classes keep and preserve this custom!"

For a moment it seemed as if the tall president's voice would break; but she went resolutely on. "Not because of to-night's quick daring, but because that act typifies four years of loving, unselfish comradeship, the girl our class *loves* best is Marion Beresford."

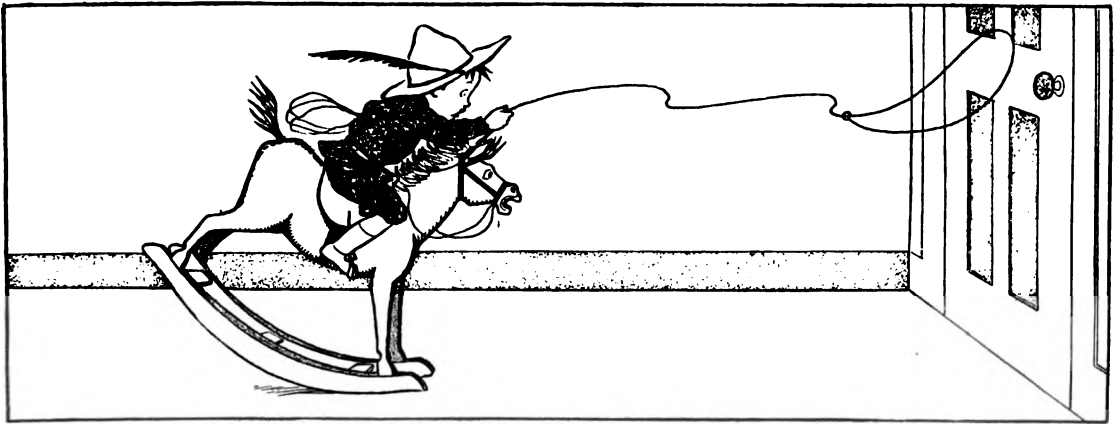
A moment of awed silence and comprehension followed. Then a dozen hands pushed from the wings a tall, blue-eyed girl in a raincoat which poorly hid her scorched dancing-costume. A tumultuous burst of appreciation from the combined forces of Raflear students and guests greeted her. Seniors, stopping for nothing, made straight for the stage. Under-classmen pulled off sashes, and, using them as pennants, waved them wildly in the air. Men and women in the audience clapped, shouted, and waved handkerchiefs.

Down in one of the front seats a woman with tear-wet eyes turned to the man beside her. "Henry, think of it—our little girl!" She grasped his arm. "It's our Marion they're cheering!"

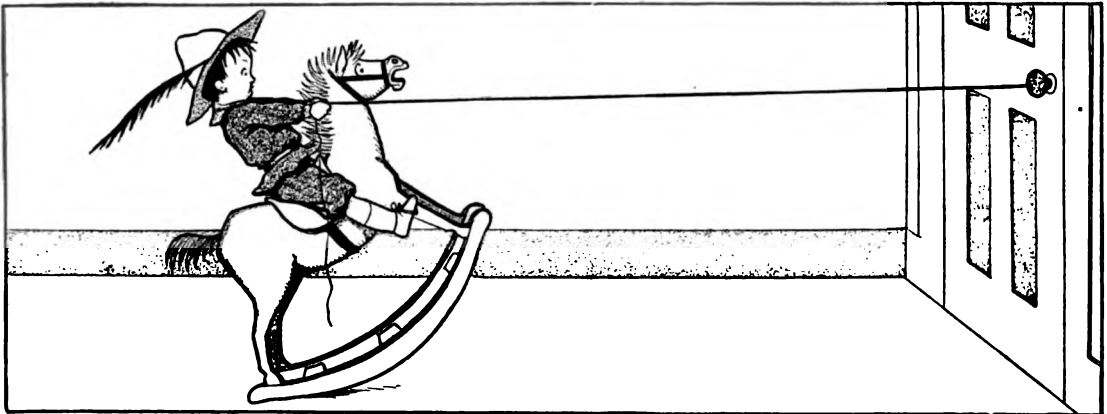
In his inability to answer promptly, he laid a hand over the one on his arm. But the tall, dignified matron on his left showed no surprise whatever at what had occurred. She smoothed her silk skirts with a little gesture that was almost supercilious as she looked pityingly at her moved companions. "Of course it is Marion!" She started forward—dignity and assurance in her every step. "The pride of the Beresfords," she remarked impressively, "has always been in the doing of great deeds."

THE BRONCO BUSTER

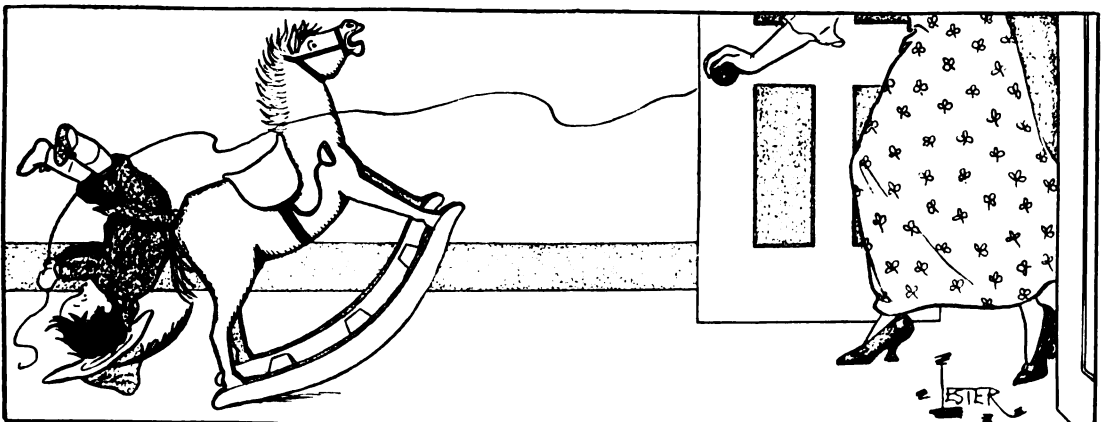
BY C. F. LESTER



BUFFALO BILL WAS SHOWING HIS SKILL
AND LASSOING CATTLE GALORE;



HIS NINETEENTH HE 'D CAUGHT
AND WAS JUST "HAULING TAUT"



—WHEN SISTER THREW OPEN THE DOOR!



THE BORDER WONDERFUL

BY KATHERINE D. CATHER

IN the workshop of Josefo the goldsmith, black-eyed Andrea was assorting the tools. There was no one to talk to, and he did n't like the task a bit. He wanted to be out in the sunshine among the pomegranates and purple-starred myrtles, where he knew Beatrice was waiting for the procession, for he was only seven years old, and this would be the gayest carnival time of all the year. But boys in his day began their life-work very early, and it was already several months since he had been apprenticed to a goldsmith, who believed not at all that one should romp when a trade was to be learned. So there was nothing for him to do but group hammers and knives and chisels, and try to be content with seeing the parade go by.

Would Beatrice forget to signal him, he wondered, with an anxious glance toward the window. Surely not, for she had promised to sing as soon as she saw the outriders. And just then a clear, sweet voice rose in a Florentine greeting song. Yes, it was coming now, the great cavalcade of which people had talked for many days, and he turned from the bench and hurried out into the loggia.

Leaning far out over the railing, he saw her standing under the pomegranates.

"Are they coming, Bice?" he asked, as her merry eyes turned toward him.

"*Sì, sì, Andrea mio,*" she called back in her musical Tuscan. "Yonder is the advance-guard, and just behind are the gleaming Medici banners. That means the ducal carriage will soon be here. Ah, it is splendid, splendid!"

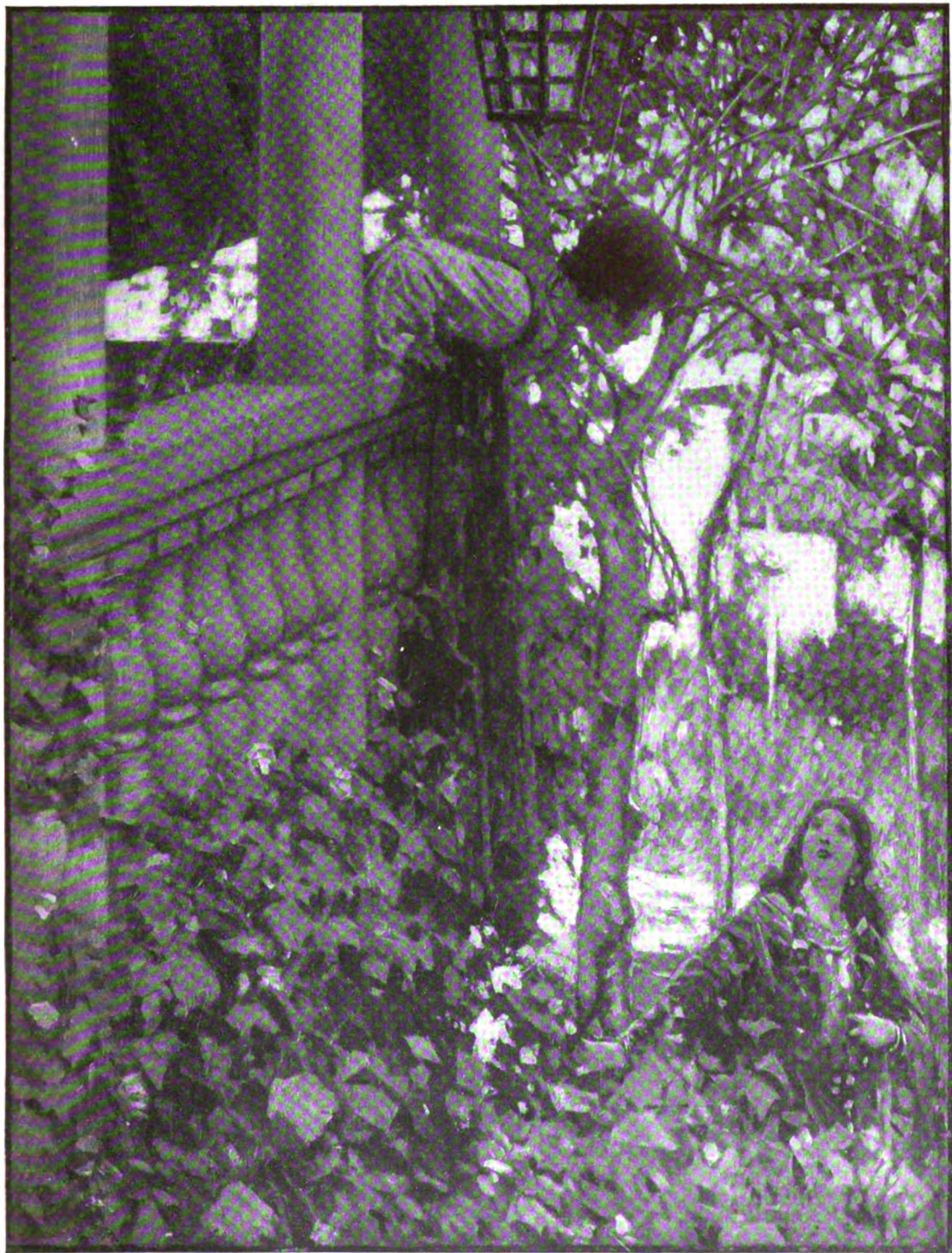
And she whirled in a dancing step and broke into song again.

Andrea ran down the stairway, forgetting all about his task in the workshop. Yes, there it came, a gorgeous procession, across the Arno by the Ponte Vecchio and along the Via Guicciardini, horsemen and footmen in fine array, bearing Florence's duke to Florence's great cathedral. His birthday it was, and the people would celebrate it magnificently, Andrea knew, for his father, the jolly tailor, had told him all about it as he bent over his sewing the night before. There would be pomp at the palace and mirth in the streets, and he wished he might roam at will and feast upon it. But suddenly a harsh voice struck his ear, for the goldsmith had come into the shop and found him away.

"Get to your bench, young dullard, and quickly too!" he called. "A nice lot of trouble you make for me with your heedless ways, and I've a mind to send you back to your father."

And looking up at the face framed in the window, the boy saw that the eyes were as angry as the voice.

He was very much frightened. Twice that morning he had been scolded for drawing pictures when he should have been turning the tool grinder, and he wondered what dreadful thing would happen now. So he hurried in through the loggia to his bench; but his lip quivered as Beatrice went on with the crowd, and he thought how hard it would be to stay in the workshop when all the mirth and life of Florence were pulsing in the streets, and tears came so thick and fast that he could hardly tell one tool from another. Then the master went out, and Leonardo, the journeyman, returned from an errand. He was older than Andrea, but they were very good



**"LEANING FAR OUT OVER THE RAILING, HE SAW HER STANDING
UNDER THE POMEGRANATES."**

friends, and the doleful face brightened as he came near.

"What 's the matter?" he asked, at the sight of the misty eyes. "Would n't he let you see the procession?"

The lad shook his head.

"No, he says I am here to work."

"Too bad, too bad," the older boy murmured. "But there will be other festivals, and he is n't often cross like this. He 's worried now because he can't get a design for the border on the cardinal's bowl, for, unless it is finished this week, there will be no more work from this great man. So it is not strange that he 's out of sorts."

Andrea had no idea what a design was, and was too unhappy to care. His mind was on the merriment, and nothing seemed half as bad as having to miss it. But he had to work. So he tried to make the best of it, and his hands moved so rapidly about the bench that soon his task was finished, and he had nothing to do until the master came in and assigned him to another. Leonardo, polishing a plate at his own place, was too busy to talk. So Andrea took a piece of parchment and a bit of charcoal from the table and began to draw.

That made him forget his disappointment. He scratched and scratched on the smooth white surface, and by the time the journeyman had finished his polishing, the sheet was almost covered, and he held it up for him to see.

Leonardo looked, then gave an exclamation.

"Oh, oh! It is a pretty thing you have made, but you 've used some of the master's parchment, and he will be angry indeed."

For parchment was costly in those far-off days, and men were very careful of it.

Andrea was terrified, and, at the sight of Josefo coming in at the door, he began to cry.

"What have you been doing now?" the man asked angrily.

"This," he sobbed, laying his hand on the parchment.

Leonardo held his breath, for he was sure that Andrea, who so often irritated the master by his thoughtless ways, would fare badly at his hands. But as the goldsmith looked at the drawing the sternness left his face, and a sort of wonder came into it.

"You don't mean you did this?" he said.

"Yes," Andrea faltered. "But I 'm sorry I spoiled the parchment."

Then, as Josefo laid his big hand on the dark head, Leonardo wondered why he had ever thought him stern.

"Never fear about that," he replied, in a voice they seldom heard in the workshop. "You have

done a wonderful thing, and it means much to me. I shall use this border for the cardinal's bowl, and to-morrow, when Gian Barile comes, I 'll show it to him. This afternoon you may have a holiday, for you deserve to see the fun for helping me out of my trouble."

And Andrea wondered how it happened that the very thing that had brought him scoldings twice that morning should give him a merry time a few hours later. But he was only seven years old, and too young to realize what a wonderful thing he had done. But this he *did* know: he was going to have a great deal of pleasure. And beside the carnival fun there was the joy of looking forward to the morrow, when Gian Barile would see his drawing, for he was said by Florentines to be a most excellent painter.

Morning in the *bottéga* of the goldsmith was a very busy time. Tools must be ground, and knives sharpened, and metal prepared for the melting-pot. Then, too, chiseling and shaping and carving began on new articles, and there was always finishing on those left over from the day before. So Andrea and Leonardo worked busily, while the master carved away at the bowl. They talked and laughed as they bent to their tasks, for now that he had a design that suited him, Josefo was in a jolly mood, and when Beatrice, the gay street-singer, put her head in at the window, he did not scold, but called to her in a merry jest. Together they chatted about yesterday's carnival, and after a while came Gian Barile, to lounge and gossip for an hour.

Andrea saw him saunter up the via, and, as he came in through the loggia, whispered to Leonardo, "Do you think he will really show him my drawing?"

And even as they held their heads together, Josefo unrolled the parchment.

"What think you of this for the work of a lad?" he asked, as Barile appeared at the door.

The painter shook his head.

"No lad did that. Or, if it be really true, let me see him, and I will show you another Giotto or Tiziano or perhaps a Leonardo."

And Leonardo the journeyman jumped so that he dropped one of the costliest tools, which would have brought a stern rebuke at any other time. But the master did not notice it. His mind was upon other things.

"Aye, aye," he insisted. "Upon the word of an honest Florentine it is the work of a lad, and he but a seven-year-old; young Andrea, the tailor's son."

For a minute Barile did not speak. Perhaps he was silent over the marvel of what the boy had done. Perhaps he thought of how he might aid

him. He just stood and looked into the dark eyes, then said slowly, "If you will study faithfully, there will come a day when you will paint more gloriously than I can ever hope to."

And Andrea believed he must have heard wrong, for Barile was one of the celebrated artists of his time.

house where Beatrice lived, to tell her he was going to be a painter.

"That will be splendid!" she cried, as she clapped her sun-browned hands; "and when you are great, I will come and sing for you."

And they laughed together, thinking how fine it would be.



"UPON THE WORD OF AN HONEST FLORENTINE IT IS THE WORK OF A LAD."

Then a thought troubled him.

Perhaps his father would not let him do it. He had been eager to have him become a goldsmith, and might think he could not be an artist. So Barile went home with him that night, and as they talked it over the tailor said his advice seemed good, and he would let his boy follow it.

Which delighted Andrea so much that he ran as fast as he could to the pomegranate-shaded

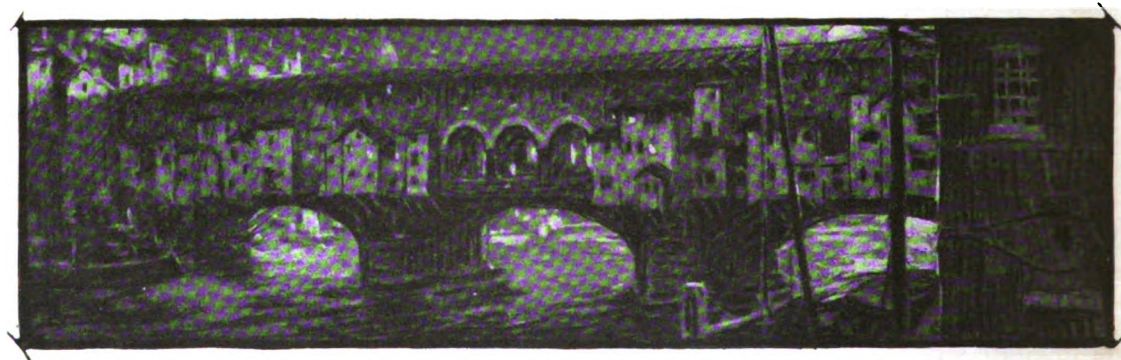
So, soon after he began his apprenticeship to the goldsmith, Andrea left it to work with brushes and pigments. He was a studious and faithful pupil, and progressed so rapidly that Barile soon realized he needed a better master, and spoke concerning him to Piero di Cosimo, the most renowned teacher of Florence, who agreed to take him under his care. Then came years of work, hard, unceasing, but happy work, for Andrea loved his brushes and canvases, and

Cosimo loved his pupil, until he became so skilful with pigments that people said it seemed as if he had used them for half a century. Nothing delighted him as much as to blend his precious colors, and, while other lads loitered in the streets or roamed along the Arno, he painted in the shop of Cosimo, improving hour by hour and day by day, until all of Barile's prophecies concerning him were fulfilled, and Florence gloried in the thought of having produced another immortal.

So it was n't bad, after all, that he had to stay in the workshop that carnival morn, for, although it seemed a hardship then, it brought him to the notice of Gian Barile, and the world came to have one more master painter. Almost four centuries have gone since he lived and worked, but artists still marvel at the beauty of his pictures, and strive, but always unsuccessfully, to copy their exquisite design and hue. Beatrice, singing away the hours under the pomegranates or

along the sun-kissed vias, thought him a foolish boy for working so hard, for she could not understand that it was a divine thing that kept him at his pigments and would make him live forever.

And what became of the border he drew on parchment in the old *bottéga*? No one knows. Perhaps Josefo treasured it throughout his lifetime. Perhaps he sold it or gave it away. As for Josefo, his very name would have been forgotten long ago, had it not happened that once, for a very short time, he had an apprentice boy who gave him a deal of trouble drawing pictures when he should have been assorting tools. But what then seemed wasted hours have proven to be hours well spent, for the lad grew to be an honor to his city and a glory to his land. And to this day, because he was the child of a maker of garments, he, like Tintoretto, the Venetian dyer's son, is still designated by his father's craft, and is known to the world as Andrea del Sarto.



AN EXCHANGE OF CONFIDENCES

TOMMY, kept in for discipline,
Proved teacher's right-hand man.
He helped when she erased the board,
And order to her desk restored,
And willing errands ran.

So pleasantly the work progressed
With Tommy's cheerful aid,
The teacher, on her tasks intent,
Forgot it was for punishment
The little culprit stayed.

So, with becoming dignity,
She said: "I can't begin
To tell how strange it seems to me
That out of school so nice you 'll be,
And such a rogue when in.

"This morning you did everything
To hinder and annoy;
But you have been so good to-night,
So quiet, helpful, and polite,
You seem another boy."

He listened, with a smile undimmed,
To this unvarnished view,
Then tossed a friendly, puzzled head,
And with a guileless candor said,
"That 's what I thought of you."

Adalena F. Dyer.

THE BOYS AND THE MOTOR-BOAT

("UNDER THE BLUE SKY" SERIES)

BY E. T. KEYSER

"GOODNESS, but I'd like to take that cruise!" said Harry.

He was lying in the shade of the tent, studying a chart, measuring off distances, and making mental calculations of the average time which would be required to make the runs between the bays and coves that promised sheltered landings.

"It would be fine!" assented Fred, looking over his brother's shoulder. "Why can't we try it?"

"Because of this," said Harry; "if you will cast your eagle eye over this bit of paper, you will see that our present camp site is the last good harbor which we can be sure of making in an ordinary day's canoe trip and leave a safe margin of time for head winds. Between this and the next place where we could be certain of enough shelter to make a landing if a storm blew up is a longer stretch than we could manage in a day of cruising, even with everything in our favor."

"Oh, I don't know," said Fred. "We could watch the weather and make the run when everything was just right, and land on any open beach that looked good for a camp."

"We could *land* all right," admitted Harry; "but if a heavy wind came up over night, we'd be stuck there until it blew out; for we could n't launch the canoes without getting half swamped and soaking everything. We can handle the canoes in deep water in weather which would not allow us to get them off from a beach."

"Harry is right," agreed Freckles, who had been unusually silent, for him, while the discussion had been going on. "A canoe will take us almost anywhere that a larger boat could, and to many places that a big craft could not find water enough to enter; but it has the disadvantage that the crew must go ashore every evening in plenty of time to make camp and cook dinner before dark, and then break camp in the morning; that cuts off time from each end of the day."

"That's the rub!" said Harry. "We can't sail all day and part of the night, and enjoy staying awake. And even if we doubled up and stood watches, the man off duty would have a hard time catching forty winks aboard a loaded canoe under way."

"That's where a launch would come in," sighed Fred. "One of us could steer her while the other two slept. We could travel all day and all

night if necessary, cook our meals aboard, and not waste any time in making and breaking camp while running for a safe harbor."

"Well, if a launch means all that, let's get one!" was Freckles' verdict.

"Just as soon as we get back home we will send for catalogues and find out how much it will cost to become full-fledged boat-owners next season. Meanwhile, the tide is about right and there is a choice assortment of bait waiting to be used."

After dinner that night the boys arranged the catalogue campaign, and during the next ten days the mail delivered at their respective homes took on a decidedly nautical aspect.

When at last it appeared that almost every boat-building concern of which the boys had ever heard had contributed its share to the campaign of education, there was a meeting at Fred's house to consider the subject.

"The first thing before the house," observed Freckles, piling his contribution of boat literature on the dining-table, "is to dispose of—or eliminate, as the professors say—those that are impossible. So we'll just shelve these cabin-cruisers and speed craft. They are out of our reach, and there is no use in even shedding tears over them"; and a pile of his catalogues were placed at one side, to be increased by others of the same class from his companions' store. "The next move is to decide upon the size and type of the boat that appears to be within our reach."

"Well," said Fred, "it strikes me that one between twenty and twenty-five feet long would give us a chance to carry plenty of camping outfit for main camps and be large enough for us to sleep aboard on night runs."

"Here's a little beauty!" said Harry. "She is twenty feet long, goes about nine miles an hour, and does n't cost too much in the first place," and he passed around a catalogue for inspection.

Freckles examined the plans and description carefully.

"I'm afraid she won't do for us," he said. "She is a beauty all right, and nine miles is not bad for that little engine; but the fact that she makes such good time with so little power shows that she has pretty fine lines. You can see how narrow she is and that there would be mighty little stowage- and sleeping-room aboard. If we wanted something in which to run around the

bay or use for afternoon runs, she would be just the thing. But we want something with less style and finish and more elbow- and foot-room, even if it does go slower."

"That sounds sensible," agreed Harry.

"What we need," said Fred, "is something which will stand rough weather and rough knocks, large enough to carry us all comfortably on a cruise, and beamy enough for fishing."

"Well," said Freckles, "then here are three or four which fill the bill. One is a whale-boat or a compromise stern, and here are a couple of dories and a Seabright skiff."

"But they cost a lot more than the little nine-mile boat!" objected Harry.

"That is because they are much larger in proportion to their length, and because they require more powerful engines to drive them," explained Freckles; "and more power means more money, right at the start."

"Well, *they* are out of our reach, so far as I can see," objected Fred. "Our fathers might help us out with the price of one of these little fellows, but I can see a blank wall staring us in the face if we put in an application for one of the others."

"Well, I seem to remember that people sometimes buy second-hand boats," said Harry.

"Cheer up! That may be the way out, after all!" said Freckles. "So suppose we each spend the next few days in finding out just how good a second-hand boat we can get for a very little money, and make our report at my house after dinner a week from to-day?"

The motion was carried and the meeting of the committee on ways and means adjourned.

"JUDGING by the expression of our faces, nobody has discovered any striking bargain in slightly used boats," said Harry, as the trio sat down in Freckles' dining-room on the appointed evening.

Fred laughed. "I found what we wanted, right enough, but the owner asked about four times as much as we could possibly scrape together. It looks as if there was what my father calls a 'bull market' on anything that will float."

"Well," admitted Freckles, "I found what I *thought* we wanted, and at a price which made me afraid that some one else would discover it before I could get the glad tidings to you fellows. It was all painted and varnished to the limit and looked like new—to *me*; but Father, who had gone scouting with me, took out his pocket-knife and made a couple of jabs under the floor-boards and into the planking, and that knife sunk into the wood as if he had been sticking it into so much cheese. As nearly as I can figure it out,

that boat would have lasted us about half-way home, and we should have had to swim or walk the rest of the distance. Father laughed, and said that she looked too good for the money, and that when he saw so much paint on a 'For Sale' boat, he liked to know what was under the paint."

"Then, here 's the situation, so far as I can see," said Fred: "we don't know the first thing about boats; the good ones are way up in the air in price; and if we buy one without taking the advice of some one who *does* know, we are bound to get stuck."

"A nice, gloomy outlook, whichever way you take it," grumbled Harry.

"Well," observed Freckles, "since it is necessary that we know what kind of stuff is in the boat, suppose we make sure of it by putting it there ourselves?"

"Which, being translated, means—?" asked Harry.

"That we *build* the boat!" was the reply.

Fred glanced at Freckles with a look of scorn which should have shriveled that luckless individual.

"You talk like a correspondence course in swimming! What does any one of us know about boat-building?" he asked. "We might manage to put up a shelf without bringing down the ceiling, or build a chicken-house which would not leak chickens; but if we tried to build a boat,—well, we 'd probably get something that would float on its side and swim in circles without using a rudder."

"Yes," said Harry, "what 's the use? If we want an aquarium, the cheapest way is to go down to the bird-store and buy a glass globe; it 's quicker."

"That kind of talk sounds wise," said Freckles, "but it 's right in line with the 'It-can't-be-done!' talk that most people always use whenever any one with a little energy suggests doing something worth while. If C. Columbus, Esquire, had paid any attention to that kind of conversation, the latest thing in American fashions would still be a string of wampum, three scalps, and some coats of vermilion war-paint."

"That 's all right, Freckles," said Harry, soothingly. "We 're game for almost anything within reason; but any boat that *we* designed would look like a floating chicken-coop and act like a submarine."

"Who said anything about designing?" Freckles replied. "Don't you fellows know that you can buy plans—patterns of the entire collection of boat-parts, all ready to put together?"

"Go on; it begins to sound almost possible, after all," said Fred.

"Here is the whole idea: the most expensive thing about a boat is the labor which must be used in putting her together. The houses that make a business of selling boat patterns and parts, bring out a certain number of models each year. They can use machinery for the different parts, which are cut out in big quantities after one pattern; but the *putting together*, which is not so hard if we follow directions, must be done by hand, and is the slowest part of the work of building. Now, if we hired a man, with a family to support, to spend weeks in doing that, it would cost a lot of money; while if *we* did it, what is *our* time worth?"

The other boys saw the point.

"Well," said Fred, "if Freckles is right, the best thing that we can do is to make up our minds as to what kind of a boat we want and then get busy and build it. Let 's decide that part of the matter now, and get past it. Then we can find out how much it will cost, and see how we can raise the money."

"Pause, my impetuous young friend, pause," said Freckles.

"Why?" asked Harry.

"To consider the sad fact that the entire marine wisdom of this celebrated trio is a minus quantity, and that we would probably pick the wrong boat and not find out our mistake until it was too late to do anything but finish it up and try to act as if we were satisfied."

"Well, Solomon Number Two, what would you suggest?"

"It strikes me that your cousin Will, who gave us so many good tips about canoe rigging, could give us a mighty good answer for this particular poser. Can't you get him to come and talk the matter over with us some evening?"

COUSIN WILL responded heartily, and a few nights later presided behind a pile of boat literature from which the choice was to be made.

"Freckles is right about the labor item being

the most expensive portion of hull cost," he said. "Now you boys constitute the labor in this case, but we must consider something else. You have the time and energy, but you have not acquired the skill which enables an experienced boat-builder to perform certain bits of construction work which certain types of boat require."



"THE PAINTING AND VARNISHING WERE EASY." (SEE PAGE 797.)

A solemn look immediately clouded the faces of his audience.

"Don't get scared!" said Cousin Will, with a smile. "The thing for us to do is to choose the kind of boat which will not require all this skill."

"Can we do it?" asked Harry.

"Of course we can!" was the reassuring answer. "Let 's proceed to do it at once. The easiest kind of a hull to put together is the flat-bottomed-skiff type, but you boys want something

more of a real launch. Suppose we decide upon a dory?"

"Why a dory?" asked Harry.

"First, because it is a seaworthy boat, which will stand almost any kind of weather and will not be injured if you beach her; second, because while she has better lines and drives more easily than a skiff, she has not the curved lines which require bending of timbers and planking—a difficult job for a first attempt."

"How big a boat should we need?" Fred asked.

"Suppose we say twenty-two feet in length," replied Cousin Will. "That will be large enough to give you a real boat, and yet will not cost too much for you to build and keep in commission."

So a dory received the unanimous vote of the naval board.

"Now for details. It will be better for you boys to order the complete material, already cut out and only needing to be put together."

"Why not buy the patterns and saw the material out ourselves? If we are to save money, we might as well save as much as possible," was Freckles' plea for economy.

"Fred, can you supply us with a saw and three pieces of plank?" asked Cousin Will.

"Yes, sir."

"All right. Thank you. Let us get them, please, and adjourn to the cellar."

A few minutes later, Cousin Will drew a heavy pencil-line across each of the three boards and gave one to each boy in turn, with instructions that he should saw the plank as marked.

"Now, if you will lay your pieces together, I will show you something which you had not thought of. See here! Harry sawed *through* his line, Fred sawed *inside* his line, while Freckles cut just to *the edge* of his."

"Um-m!" said Freckles. "Every plank would have been of a different length."

"Yes," said Cousin Will. "And in boat patterns the lines are apt to be rather wide, sometimes, so that even were each sawed by the same man, they would vary considerably. That is why, even with the added expense of freight, it is really economy to order planking and parts cut by machinery and be sure that each is accurate."

"I see," said Freckles; "then all we have to do is to put the parts together after we get them. But how shall we know which part is which and into which part of the puzzle it is supposed to fit?"

Cousin Will smiled. "Each part will be numbered, and instructions will accompany the plans, telling just how to assemble the parts and the best method of putting them together. Some houses even assemble the parts, fastening them

together with just sufficient screws to make sure that everything is a perfect fit, and then take the boats apart again for convenience and economy in shipping. When you come to reassemble the parts, these screw-holes will serve as guides, showing you how to fasten the portions together and set the intervening fastenings in their proper locations."

"That seems a jolly good plan for fellows who know as little about boat-building as we do," said Harry.

"Well," said Fred, "I should say that the twenty-two-foot dory will be about our size and style."

"Yes," said Cousin Will. "She will be easy to build, for one thing; and another point is that she will be large enough to tow one of the canoes as a tender. With a much smaller launch, anything in the way of a tow would hold you back entirely too much, and yet you *must* have a tender if you are ever to land anywhere except at a dock or float."

"But you said that a dory might be beached without injury," reminded Harry.

"She may be," was the reply, "but you would not wish to beach a boat on a falling tide and be obliged to wait for it to rise again before getting off. And it will not always be on a rising tide that you will want to go ashore. That is one point against a very small power-boat. She is apt to be too small for a tender and too large to get off a beach."

"Um-m," said Freckles. "I never thought of that before, but I understand now. That was why the canoe and portable motor was such a fine combination. We could run ashore anywhere, and when we wanted to launch it, it did not require much depth of water."

"How about the motor?" asked Harry.

"Let's get the boat first," suggested Fred. "We shall have plenty of time to talk about the motor when the boat is building."

"That would hardly be a good plan," said Cousin Will. "You see, boring the shaft-log is not a particularly easy task, and it requires special tools, seldom found outside of a shipyard. Now, if we decide upon the particular motor before ordering the boat material, we can have the engine manufacturer furnish us with a diagram showing the exact dimensions of the motor in inches—and down to fractions of an inch. From these dimensions the material people will be able to see just where the motor should be placed in the boat to give as much available space as possible and at the same time to allow of as little rake or drop to the shaft, and then they will bore the shaft-log at the correct angle and of the right diameter."

"Great!" exclaimed Harry. "Anything that reduces the amount of work, especially the 'fussy' portion of it, appeals to me."

"Well, since we seem to be in for it, how about the motor?" asked Freckles.

"Here is the situation," said Cousin Will. "Seven miles an hour will be about the limit of economical speed in this prospective craft of yours. You *could* drive her eight, probably nine, but this additional engine-power would cost you, for fuel and oil, out of all proportion for those extra miles. So you had best be satisfied with the seven and take all possible precautions to get them."

"What is it that makes a boat slow or fast?" asked Freckles. "It's funny, but I never thought of it before. Can a man sit down and say 'I want to go so many miles an hour' and get that many miles?"

"Within certain limits, yes," said Cousin Will. "That is, if he is willing to spend the money. For instance, one may have a little racing or speed craft which will travel twenty-five miles an hour, but the fuel for that one hour's traveling will cost more than the gasoline to run your prospective dory five hours, or thirty-five miles; while his motor would cost him many times over what you will pay for yours. The thing that governs the speed of a boat is the pitch of her propeller. 'Pitch' is the angle at which the blades are set in relation to the shaft. Consider the blades as the thread of a screw which is driven through water instead of wood. A sixteen-inch pitch is the same as a thread which, if screwed through a solid body of wood, would make the point of the screw sink sixteen inches deeper into the wood at each turn.

"But water is not solid, and if you want to push against it, your propeller-blades must be long enough and wide enough to take hold, otherwise you would get no more 'push' than if you attempted to paddle with the edge of the blade of your canoe-paddle. If you have a very lightly built and fine-lined boat, your propeller-blades need not be so long as with a heavier and wider craft, which gives more resistance to the water when being pushed. The length of the blades is called the diameter; and the smaller the diameter that is necessary to furnish push for any particular boat, in proportion to the pitch of the propeller, the faster the propeller will revolve and the faster the boat will go. But if the diameter, or width, of the blades is not enough to take hold of the water, the propeller will simply revolve, while the boat stands still."

"I think I see the point," said Freckles. "If a boat travels easily,—a racing boat, for instance,

—she can have a big pitch and small diameter to her propeller; this will let the engine turn over very fast, and makes the boat rush along at a good clip; while a beamy, rather heavy, boat, such as ours will be, would require enough diameter of propeller, in proportion to its pitch, to keep the motor running slowly and only allow us to make a fair speed."

"You have put the case exactly," said Cousin Will.

"Now, how do we figure out the power we'll need?" asked Harry.

"In the first place, your boat will be rather heavy in build, and will require a motor running at medium speed, say from six to seven hundred revolutions per minute. Here is a naval architect's table, showing the approximate speeds of different types of boats with different types of propellers at various speeds. The bulkier and wider the boat, the greater the resistance to the forward motion, or 'slip' as the architects call it. We will take it for granted that your boat will be in the slowest class and therefore have the greatest slip, say thirty per cent. Now let us look it up in the table. Here, under the column for seven hundred revolutions per minute, with thirty per cent. slip, we find that about seven miles per hour calls for a sixteen-inch pitch. Now, turning to another table, we find under the seven-hundred-revolution column that a sixteen-inch pitch, with fourteen-inch diameter, calls for a motor developing six horse-power at that speed."

"Is not a six-horse-power motor a six-horse-power motor at any speed?" was Fred's inquiry.

"No, Fred," said Cousin Will. "A motor which will develop six horse-power at 450 revolutions is much larger and more expensive than one which develops that same power at 1000 revolutions per minute. Power is really fuel energized, and a certain quantity of fuel, consumed in a given time, represents a certain power, whether the motor consumes large quantities at each revolution and makes comparatively few revolutions per minute, or takes up small quantities per revolution and makes very many revolutions per minute."

"Why not buy a very small motor and make it turn fast?" asked Freckles.

"Great idea," agreed Fred. "Let's save the money!"

Cousin Will smiled. "The difficulty lies in the fact that you could not get a very small high-speed motor to turn over your fourteen-by-sixteen-inch propeller fast enough to develop its power. It would simply run slowly, and your dory would crawl along at paddling speed. On

the other hand, attached to a small-diameter propeller and installed in a speed craft or canoe, it would turn over at a good rate, and the lighter boats would make better time than your dory ever will."

"What *are* we to choose, then?" was the chorus.

"What, besides a motor, shall we need for the power-plant?" asked Fred.

"By all means get either a reverse gear or a reversible propeller. They will permit you to stop, start, or back up at will, and let the engine continue to turn over in the same direction all the while."

"Which is the better?"

Harry wanted to know.

"Both are good; either will do things that the other cannot. It depends upon which of these things appeal most to you. The reversible propeller allows you to slow down to a speed to which you could not throttle your motor without its stopping, and also permits of adjustment of the propeller-blades to the exact pitch to get the highest possible speed from your motor. The reverse gear will allow the motor to revolve without the boat moving an inch forward or backward; also, with it you can unwind a rope from the wheel or shaft. You cannot do this with the reversible wheel, which turns only in one direction. It is a matter of preference, so you may as well fight it out among yourselves. Either will do for you what the other cannot, as I said. Both are good." And Cousin Will left for home.



"JUST THEN CAME A HAIL FROM THE FLOAT." (SEE PAGE 798.)

"Well, a single cylinder, two-cycle, marine motor of four and a half inches bore and four and a half inches stroke, or a two-cylinder of three and a half inches bore by three and a half inches stroke, will develop about six horse-power at seven hundred revolutions per minute, and turn a fourteen-by-sixteen propeller at that speed."

"Which shall we choose?" asked Fred.

"The single cylinder costs less; but the two-cylinder runs more smoothly, with less noise from the exhaust and considerably less vibration," was the reply. "So take your choice."

FOR one solid week every moment of leisure was devoted again to boat and engine literature, until the boys were in a position to talk learnedly of the various good points of the several six-horse-power motors and their equipment. When the table of costs had been figured out and reduced to its lowest terms, the marine delegation waited upon their respective parents and made application for funds. Evidently Cousin Will had paved the way, for the parents consented to the plan on condition that Cousin Will should approve all orders and inspect the purchases, and also inspect the boat and pronounce it seaworthy before the young builders ventured a voyage aboard her.

The lads' joy at this happy state of affairs was

increased by the success of the persuasive Freckles in inducing his uncle to donate the use of his barn for building purposes. "It will be a great help," he confided to the other boys, "to be able to work in rainy weather at putting the boat together."

"Say, Freckles, how wide are the barn doors?" asked Fred.

Freckles smiled as he answered: "Two feet wider than we shall need. I thought of that. When Father was a boy, he built a skiff in the cellar, and she was there after he grew up. Grandfather would n't let him rip out the side of the house."

With the assistance of Cousin Will, the motor was selected and ordered, and diagrams of its dimensions forwarded to the knock-down boat-builder, together with a request for suggestions regarding its installation when the boat was completed. After this was settled, the order for boat material, cut to fit, was duly signed and forwarded, and an anxious three weeks intervened.

Finally, the bill of lading arrived, and the boys accompanied the truckman to the freight-station to receive their treasure.

"It's great!" they confided to their parents that evening. "There are type-written instructions, diagrams, and photographs, showing how everything is done, and also a list explaining just how much and what kind of hardware to use."

"Which reminds me," observed Freckles, "do we want to use galvanized or copper fastenings?"

"If I were doing it," said Cousin Will, when confronted with the problem, "I think I should use brass screws. They are easier to handle and make a better job than nails, and, on a boat of this size, will not cost very much more."

"You will note that, after you have set up the frames according to instructions, not only are the different pieces of planking marked, but, when they are fastened in place by setting screws in the holes already made, all you will have to do to finish the planking job is to bore more holes and set additional screws through the planking into the timbers. If I were you, I would get a brace-bit of the proper size to bore for the screws, another to bore for the wooden plugs that are to cover the screws, and a couple of those little gages to fasten to each bit to regulate the depth; also an automatic screw-driver and a counter-sink."

"Freckles can bore out for the plugs, Fred can follow him with the bit to make the screw-holes,—don't bore for the screws first, or you'll have nothing to take the center of the plug-bit,—and then let Harry follow Fred and make the counter-sink to receive the screw-heads. Then commence

all over again. Harry dips the screws in white lead and sets them in the holes, Freckles follows with the screw-driver, and Fred follows with the plugs dipped in shellac.

"Now let one of you set the plugs with a hammer, and some one follow him with a *sharp* chisel, trimming off the heads. Be sure to use plugs of the same wood as your planking, and set them with the grain running the same way as the planking grain."

"Be sure, also, to set up the boat plumb and level, and every once in a while test her by measuring. But everything is so easy on a boat of this kind that, with ordinary care and following the directions, you can hardly go astray."

The building operations required rather more time than the boys had expected, but not nearly so long, as Harry pointed out, as if they had been obliged to get out the material themselves. Cousin Will ran in occasionally, to help them over the hardest points, and the motor was installed by a plumber who was a motor-boat owner.

"We could have done it ourselves," exclaimed Harry, "but we did n't have the tools; and it hardly seemed worth while to buy them for that one job."

"But we watched him," added Freckles, "and we'll know just how to put it back when we go into commission next season."

The painting and varnishing were easy, for paint manufacturers, nowadays, distribute booklets showing just how everything, from preparing the wood to laying on the last coat, should be done.

Then, with launching day almost staring them in the face, the question of equipment arose.

"She is under twenty-six feet," said Cousin Will, "which means that you need carry but two lights: a Fresnel or fluted glass for the bow, showing red on the port, or left, side and green on the starboard, or right, side; and a Fresnel white light for the stern. You must also carry a whistle or signal, capable of a blast of at least two seconds' duration; one life-preserver for each person aboard; and two copies of the pilot rules, which may be obtained from the Department of Commerce and Labor at Washington, or from the nearest custom-house; also an effective fire-extinguisher. This is a list of what the law says you *must* carry; but, for your own safety and convenience, it will be well to add a fog-horn and a fog-bell; and a spirit-compass will enable you to navigate after dark or in a fog."

"Get these extras, even if you economize on cushions and fancy fixings the first season. That is one of the nice things about a power-boat. You can begin with a very moderate outfit and 'rough

it' during the first season, and yet have a splendid time. Next year, you can add cushions and all sorts of comforts which your experience has shown will increase the pleasure of your cruises, and the longer you own the boat the more comfortable and convenient she will become."

LAUNCHING day had arrived. Long before the truckman could possibly be expected, the trio were assembled at the boat barn. Breakfasts had been quickly disposed of—who would care to eat when the first voyage aboard one's own home-built boat looms up on the horizon? It seemed as if the truckman never would appear, but finally he *did* arrive, and the boat was carefully stowed for her first short trip.

Between the truckman and Cousin Will, who had appeared at the landing to grace the occasion, the launching arrangements were made and the boat slid overboard with the boys cheering wildly.

The boys' experience with the portable motor proved to have been good training; and with a little help in adjusting the motor, they were soon passing down the bay with a white wave curling away from the bow. There might have been a trifle too much smoke from the exhaust, and Harry's inexperience in handling a wheel might have produced a somewhat wobbly wake. But why be critical?

"Let 's open her up," said Harry. "She can do better than this, I know."

"Better go slow for the first few days," advised Cousin Will, "until the motor has smoothed down the bearings a bit by actual use." So ignoring implied challenges to race offered by other small craft, they rode along at moderate speed.

The trip was a great success, and being provided with luncheon, they decided to make a day of it. They came back in the evening convinced that nothing in the way of pleasure was equal to a successful run in a good power-boat.

Whatever doubt they may have had regarding their ability to navigate their new craft had been set at rest, and the next day found them ready for another cruise, which was to be beyond the farthest point to which their canoe trips had ever carried them.

Proudly they pushed off from the float and boarded their launch from the canoe, which was to act as tender. Fred stowed the cover, Harry turned on the gasoline, and Freckles threw the switch.

Fred reached the crank first, and, retarding the spark, gave her a turn over. Nothing happened, so he turned again. Still the motor remained silent. Again he cranked. The motor sulked.

"Snap it over!" advised Freckles; "you 're too slow."

Fred "snapped," but it did n't make a bit of difference.

"Give *me* the exerciser," demanded Harry. Fred relinquished it without a murmur. Harry tried, tried again, once more, and then subsided.

"Want to try *your* luck?" he asked Freckles.

"Not I," answered that wise youth. "When one of these things won't go with all the coaxing that you two have been applying, there is no use wasting strength. It 's a case of using your brains."

"All right, Benjamin Franklin Edison, don't mind us! Go right ahead and use yours if you think that they 'll wake up this motor."

Freckles carefully examined the coils, which appeared all right, then gave his attention to the batteries, which showed no bad connections. Yes, the gasoline was turned on. Then he primed the engine through the relief-cocks. The motor started off joyously, but died with discouraging promptness. Several further attempts to prime her into action failed.

"She will go if she has a chance," he said. "The electrical system is all right. Must be the carbureter." He turned the needle-valve toward the right a trifle, then, reconsidering, attempted to turn it to the left. It refused to move.

"Which one of you shining lights shut off the carbureter last night?" he asked.

"I must have done it when I was polishing it," admitted Harry. "Come to think of it, the cloth caught on something, and I did n't stop to see what it was."

"Go to the foot of the class," advised Freckles.

Just then came a hail from the float. It was Cousin Will.

"Room for a passenger?" he asked.

"We appear to need an engineer more," answered Fred. "Wait a moment and I 'll be over for you."

Half-way out of the bay they met another launch pointing directly toward them.

"What shall we do?" asked Fred, who was at the wheel.

"Give her one blast and sheer over to the right," was the answer. "If we were going to pass to the left, two blasts would have told her which way we would head."

"What do we do when a boat crosses our course?" one of the boys asked.

"When two power-boats are approaching each other at right angles, the one which has the other on her port (left) bow has the right of way; the other must change her course."

"When coming up behind another power-boat

in a narrow channel, the overtaking boat sounds one blast if she intends passing ahead to the right, or two blasts if intending to pass to the left, and

should then give one blast and steer to the right or two blasts and steer to the left."

"There is a white light directly ahead now,"

said Harry, a few minutes later. "What does that mean?"

"Either that we are approaching a boat at anchor or coming up astern of one under way. It is our duty to steer clear in either case, signaling if the boat is under way. She is under way, so give a single blast."

Harry did so. The signal was answered by a single blast, Harry turned over his wheel, and they passed a smaller launch.

"Why, it's quite simple," said Fred. "It's only keeping to the rules of the road, as in driving or walking, and telling the other chap what you are doing before you do it."

"But why must the second boat answer?" asked Freckles.

"So that we know that she has heard and understood our signal. That is why the first boat should receive a reply before changing the course. Never use the whistle for saluting purposes or just to make a noise. It is for signaling only. And do not always insist on the right of way when a larger craft is approaching, unless you cannot get out of her course. Remember that many times you can hug the side of a channel or slow up or give way where a big boat might

go aground in doing so. But once having given a signal, do not change your course to a different one from what you have signaled you would take. It is changes of mind like that which cause accidents. The other pilot is not a mind-reader, and the thing which he expects of you is what you have promised, by whistle, you would do."

"How about meeting a sail-boat?" asked Harry.

Cousin Will laughed. "A sail-boat is a privileged character. You must keep out of her way. You can tell one at night by the fact that she carries but two lights, red and green; the white stern-light is absent. Well, here is the float. We've certainly had a pleasant day of it."



COMING HOME IN THE EVENING.

should wait until the craft ahead has assented to the passing by repeating the signal given."

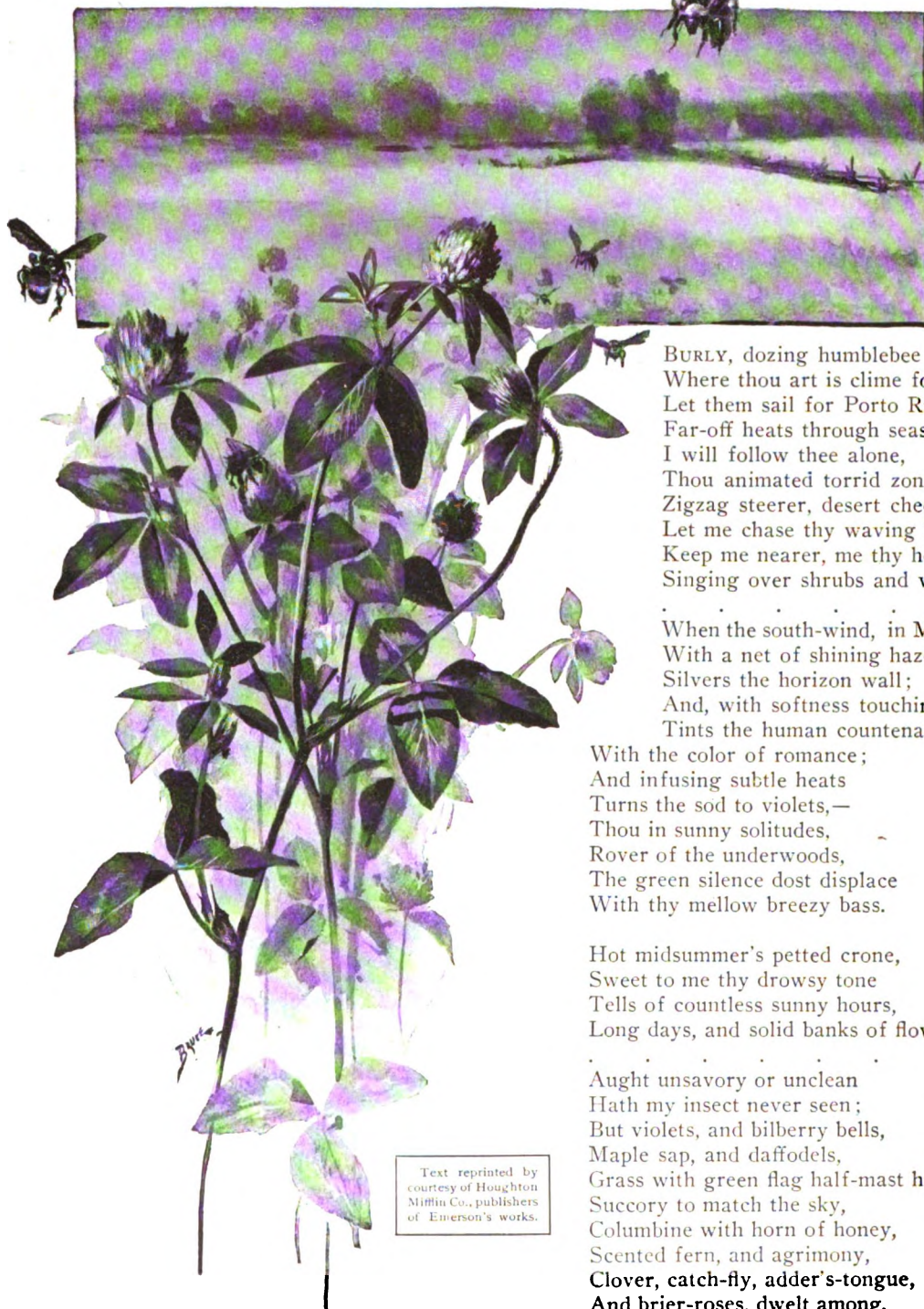
Coming home that evening, Cousin Will showed them how to tell by the lights of an approaching craft whether she was headed in their direction or taking a course which would keep them apart.

"There is a boat coming," said Harry. "I can see her white and red lights. What shall I do?"

"Nothing," was the reply. "You see her red light because she is to the left of us, and there is no danger of a collision. If you saw her white and green lights, she would be passing to the right of us. But if you saw both lights at once, she would be heading directly toward us, and you

LINES FROM "TO THE HUMBLEBEE"

BY RALPH
WALDO
EMERSON



BURLY, dozing humblebee!
Where thou art is clime for me;
Let them sail for Porto Rique,
Far-off heats through seas to seek.
I will follow thee alone,
Thou animated torrid zone!
Zigzag steerer, desert cheerer,
Let me chase thy waving lines;
Keep me nearer, me thy hearer,
Singing over shrubs and vines.

When the south-wind, in May days,
With a net of shining haze
Silvers the horizon wall;
And, with softness touching all,
Tints the human countenance

With the color of romance;
And infusing subtle heats
Turns the sod to violets,—
Thou in sunny solitudes,
Rover of the underwoods,
The green silence dost displace
With thy mellow breezy bass.

Hot midsummer's petted crone,
Sweet to me thy drowsy tone
Tells of countless sunny hours,
Long days, and solid banks of flowers.

Aught unsavory or unclean
Hath my insect never seen;
But violets, and bilberry bells,
Maple sap, and daffodels,
Grass with green flag half-mast high,
Succory to match the sky,
Columbine with horn of honey,
Scented fern, and agrimony,
Clover, catch-fly, adder's-tongue,
And brier-roses, dwelt among.

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THE BOYS' LIFE OF MARK TWAIN

BY ALBERT BIGELOW PAINE

Author of "Mark Twain, a Biography," etc.

CHAPTER XXX

TRAMPING ABROAD

It was now going on ten years since the publication of "The Innocents Abroad," and there was a demand for another Mark Twain book of travel. Clemens considered the matter, and decided that a walking tour in Europe might furnish the material he wanted. He spoke to his good friend, the Rev. "Joe" Twichell, and invited him to become his guest on such an excursion, because, as he explained, he thought he could "dig material enough out of Joe to make it a sound investment." As a matter of fact, he loved Twichell's companionship, and was always inviting him to share his journeys to Boston, to Bermuda, to Washington—wherever interest or fancy led him. His plan now was to take the family to Germany in the spring, and let Twichell join them later for a summer tramp down through the Black Forest and Switzerland. Meantime, the Clemens household took up the study of German. The children had a German nurse, the others a German teacher. The household atmosphere became Teutonic. Of course it all amused Mark Twain, as everything amused him, but he was a good student. In a brief time he had a fair knowledge of every-day German and a really surprising vocabulary. The little family sailed in April, 1878, and a few weeks later were settled in the Schloss Hotel, on a hill above Heidelberg overlooking the beautiful old castle, the ancient town, the Neckar winding down the hazy valley—as fair a view as there is in all Germany.

Clemens found a room for his work in a small house not far from the hotel. On the day of his arrival he had pointed out this house and said he had decided to work there—that his room would be the middle one on the third floor. Mrs. Clemens laughed, and thought the occupants of the house might be surprised when he came over to take possession. They amused themselves by watching "his people," and trying to make out what they were like. One day he went over that way, and, sure enough, there was the sign "Furnished Rooms," the one he had pointed out from the hotel was vacant and became his study.

The travelers were delighted with their location. To Howells Clemens wrote:

Our bedroom has two great glass bird-cages (inclosed balconies), one looking toward the Rhine valley and

sunset, the other looking up the Neckar cul-de-sac, and naturally we spend nearly all our time in these. We have tables and chairs in them. . . . It must have been a noble genius who devised this hotel. Lord, how blessed is the repose, the tranquillity of this place! Only two sounds: the happy clamor of the birds in the groves and the muffled music of the Neckar tumbling over the opposing dikes. It is no hardship to lie awake awhile nights, for this subdued roar has exactly the sound of a steady rain beating upon a roof. It is so healing to the spirit; and it bears up the thread of one's imaginings as the accompaniment bears up a song.

Twichell was summoned for August, and wrote back eagerly at the prospect:

Oh, my! do you realize, Mark, what a symposium it is to be? I do. To begin with, I am thoroughly tired and the rest will be worth everything. To walk with you and talk with you for weeks together—why, it 's my dream of luxury!

Meantime the struggle with the "awful German language" went on. Rosa the maid was required to speak to the children only in German, though little Clara at first would have none of it. Susy, two years older, tried, and really made progress, but one day she said pathetically:

"Mama, I wish Rosa was made in English."

But presently she was writing to "Aunt Sue" (Mrs. Crane) at Quarry Farm:

I know a lot of German; everybody says I know a lot. I give you a million dollars to see you, and you would give two hundred dollars to see the lovely woods we see.

Twichell arrived August first. Clemens met him at Baden-Baden, and they immediately set forth on a tramp through the Black Forest, excursioning as they pleased and having a blissful time. They did not always walk. They were likely to take a carriage or a donkey-cart—or even a train—when one conveniently happened along. They did not hurry, but idled, and talked, and gathered flowers, or gossiped with wayside natives—picturesque peasants in the Black Forest costume. In due time they crossed into Switzerland and prepared to conquer the Alps.

They did not climb many of the Alps on foot. They did scale the Rigi, after which Mark Twain was not in the best walking trim, though later, no small undertaking, they conquered Gemmi Pass, that trail that winds up and up until the traveler has only the glaciers and white peaks and the little high-blooming flowers for company.

All day long the friends would tramp and talk

together; and when they did not walk, they would take seats in a diligence or hire any other vehicle that came handy. But whatever their means of travel, the joy of comradeship amid those superb surroundings was the same. In Twichell's letters home we get pleasant pictures of the Mark Twain of that day:

Mark to-day was immensely absorbed in flowers. He scrambled around and gathered a great variety, and manifested the intensest pleasure in them. . . . Mark is splendid to walk with amid such grand scenery, for he talks so well about it, has such a power of strong, picturesque expression. I wish you might have heard him to-day. His vigorous speech nearly did justice to the things we saw.

And in another place:

He can't bear to see the whip used, or to see a horse pull hard. To-day, when the driver clucked up to his horse and quickened his pace a little, Mark said, "The fellow 's got the notion that we are in a hurry."

Another extract refers to an incident which Mark Twain also mentions in "A Tramp Abroad":¹

Mark is a queer fellow. There is nothing so delights him as a swift, strong stream. You can hardly get him to leave one when once he is in the influence of its fascinations. To throw in stones and sticks seems to afford him rapture.

Twichell goes on to tell how he threw some driftwood into a racing torrent, and how Mark went running down-stream after it, waving and shouting in a sort of mad ecstasy: "When a piece went over a fall and emerged to view in the foam below, he would jump up and down and yell. He acted just like a boy."

Boy he was, then and always. Like *Peter Pan*, he never really grew up—that is, if growing up means to grow solemn and uninterested in play.

Climbing the Gorner Grat, the two sat down to rest, and a lamb from a near-by flock ventured toward them. Clemens held out his hand and called softly. The lamb ventured nearer—curious, but timid.

It was a scene for a painter: the great American humorist on one side of the game, and the silly little creature on the other, with the Matterhorn for a background. Mark was reminded that the time he was consuming was valuable, but to no purpose. The Gorner Grat could wait. He held on with undiscouraged perseverance till he carried his point; the lamb finally put its nose in Mark's hand, and he was happy all the rest of the day.

In "A Tramp Abroad" Mark Twain burlesques most of the walking tour with *Harris* (Twichell),

¹Chapter XXXIII.

feeling perhaps that he must make humor at whatever cost. But to-day the other side of the picture seems more worth while. That it seemed so to him, also, even at the time, we may gather from a letter he sent after Twichell when it was all over and Twichell was on his way home.

Dear old Joe:

It is actually all over! I was so low-spirited at the station yesterday; and this morning, when I woke, I could n't seem to accept the dismal truth that you were really gone and the pleasant tramping and talking at an end. Ah, my boy! It has been such a rich holiday for me, and I feel under such deep and honest obligations to you for coming. I am putting out of my mind all memory of the time when I misbehaved toward you and hurt you; I am resolved to consider it forgiven, and to store up and remember only the charming hours of the journey and the times when I was not unworthy to be with you and share a companionship which to me stands first after Livy's.

Clemens had joined his family at Lausanne, and presently they journeyed down into Italy, returning later to Germany—to Munich, where they lived quietly with Fräulein Dahlweiner at No. 1^a Karlstrasse while he worked on his new book of travel. When spring came they went to Paris, and later to London, where the usual round of entertainment briefly claimed them. It was the third of September, 1879, when they finally reached New York. The papers said that Mark Twain had changed in his year and a half of absence. He had somehow taken on a traveled look. One paper remarked that he looked older than when he went to Germany and that his hair had turned quite gray.

They went directly to Quarry Farm, where Clemens again took up work on "A Tramp Abroad," which he hoped to have ready for early publication. But his writing did not go as well as he had hoped, and it was long after they had returned to Hartford that the book was finally in the printer's hands.

Meantime, he had renewed work on a story begun two years before at Quarry Farm. Browsing among the books there one summer day he had happened to pick up "The Prince and the Page," by Charlotte M. Yonge. It was a story of a prince disguised as a blind beggar, and as Mark Twain read an idea came to him for an altogether different story, or play, of his own. He would have a prince and a pauper change places, and through a series of adventures each learn the trials and burdens of the other's life. He presently gave up the play idea and began it as a story. His first intention had been to make the story quite modern, using the late King Edward VII, then Prince of Wales, as his prince; but it seemed to him that it would not do to lose

a prince among the slums of modern London. He could not make it seem real, so he followed back through history until he came to the little son of Henry VIII, Edward Tudor, and decided that he would do.

It was the kind of a story that Mark Twain loved to read—and to write. By the end of that first summer he had finished a good portion of the exciting adventures of "The Prince and the

Sawyer," read aloud from the manuscript. Also, they knew about plays. They could not remember a time when they did not take part in evening charades—a favorite amusement in the Clemens home. Mark Twain, who always loved his home and played with his children, invented the charades and their parts for them, at first, but as they grew older they did not need much help. With the Twichell and Warner children, they



"HE POURED OUT A FERVID EULOGY ON GRANT'S VICTORIES."

Pauper," and then, as was likely to happen, the inspiration had waned and the manuscript had been laid aside.

But with the completion of "A Tramp Abroad," a task which had grown wearisome, he turned to the luxury of romance with a glad heart. To Howells he wrote that he was taking so much pleasure in the writing that he wanted to make it last.

Did I ever tell you the plot of it? It begins at 9 A.M. January 27, 1547. . . . My idea is to afford a realizing sense of the exceeding severity of the laws of that day by inflicting some of their penalties upon the king himself, and allowing him a chance to see the rest of them applied to others.

Susy and Clara Clemens were old enough now to understand the story, and as their father finished the chapters he read them aloud to his small home audience—a most valuable audience indeed, for he could judge from its eager interest, or lack of attention, just the measure of his success.

These little people knew all about the writing of books. Their earliest recollection was "Tom

organized a little company for their productions and entertained the assembled households. They did not make any preparation for their parts. A word was selected and the syllables of it whispered to the little actors. Then they withdrew to the hall, where all sorts of costumes had been laid out for the evening, dressed their parts, and each group marched into the library, performed its syllable, and retired, leaving the audience of parents to guess the answer. Now and then, even at this early day, they gave little plays, and of course Mark Twain could not resist joining in them. In time, the plays took the place of the charades and became quite elaborate, with a stage and scenery; but we shall hear of this later on.

"The Prince and the Pauper" came to an end in due season, in spite of the wish of both author and audience for it to go on forever. It was not published at once for several reasons, the main one being that "A Tramp Abroad" had just been issued from the press and a second book might interfere with its sale.

As it was, the "Tramp" proved a successful book. The sales were large, the advance orders

amounting to twenty-five thousand copies and the return to the author forty thousand dollars for the first year.

CHAPTER XXXI

GENERAL GRANT AT HARTFORD—UNLUCKY INVESTMENTS—BACK TO THE RIVER

A THIRD little girl came to the Clemens household during the summer of 1880. They were then at Quarry Farm, and Clemens wrote to his friend Twichell:

Dear old Joe:

Concerning Jean Clemens, if anybody said he "did n't see no p'int about that frog that 's any better than any other frog," I should think he was convicting himself of being a pretty poor sort of an observer. . . . It is curious to note the change in the stock quotations of the Affection Board. . . . Four weeks ago the children put Mama at the head of the list right along, where she has always been. But now:

Jean	
Mama	
Motley	} cats
Fräulein	
Papa	

That is the way it stands now. Mama is become No. 2; I have dropped from 4 and become No. 5. Some time ago it used to be nip and tuck between me and the cats, but after the cats "developed" I did n't stand any more show.

Those were happy days at Quarry Farm. The little new baby thrived on that summer hilltop. Also, it may be said, the cats. Mark Twain's children had inherited his love for cats, and at the farm there were cats of all ages and varieties. Many of the bedtime stories were about these pets—stories invented by Mark Twain as he went along—stories that began anywhere and ended nowhere, and continued indefinitely from evening to evening, trailing off into dreamland.

1880 was a presidential year. Mark Twain was for General Garfield and made a number of remarkable speeches in his favor. General Grant came to Hartford during the campaign, and Mark Twain was chosen to make the address of welcome. Perhaps no such address of welcome was ever made before. He began:

"I am among those deputed to welcome you to the sincere and cordial hospitalities of Hartford, the city of the historic and revered Charter Oak, of which most of the town is built."

He seemed to be at a loss what to say next, and, leaning over, pretended to whisper to Grant. Then, as if he had been prompted by the great soldier, he straightened up and poured out a fervid eulogy on Grant's victories, adding in an aside as he finished, "I nearly forgot that part

of my speech," to the roaring delight of his hearers, while Grant himself grimly smiled.

He then spoke of the general being now out of public employment, of how grateful to him his country was, and how it stood ready to reward him "in every conceivable—*inexpensive* way."

Grant had smiled more than once during the speech, and when this sentence came out at the end his composure broke up altogether, while the throng shouted approval. Clemens made another speech that night at the opera-house—a speech long remembered in Hartford as one of the great efforts of his life.

A very warm friendship had grown up between Mark Twain and General Grant. A year earlier, on the famous soldier's return from his trip around the world, a great birthday banquet had been given him in Chicago at which Mark Twain's speech had been the event of the evening. The colonel who long before had chased the young pilot-soldier through the Missouri bottoms had become his conquering hero, and Grant's admiration for America's foremost humorist was most hearty. Now and again, Clemens urged General Grant to write his memoirs for publication, but the hero of many battles was afraid to venture into the field of letters. He had no confidence in his ability to write. He did not realize that the man who had written "I will fight it out on this line if it takes all summer," and later, "Let us have peace," was capable of English as terse and forceful as the Latin of Cæsar's Commentaries.

"THE PRINCE AND THE PAUPER," delayed for one reason and another, did not make its public appearance until the end of 1881. It was issued by Osgood, of Boston, and was a different book in every way from any that Mark Twain had published before. Mrs. Clemens, who loved the story, had insisted that no expense should be spared in its making, and it was indeed a handsome volume. It was filled with beautiful pen and ink drawings, and the binding was rich. The dedication to its two earliest critics read:

To those good-mannered and agreeable children, Susy and Clara Clemens.

The story itself was unlike any of Mark Twain's former work. It was pure romance, a beautiful idyllic tale, though not without his touch of humor and humanity on every page. And how breathlessly interesting it is! We may imagine that first little audience—the "two good-mannered and agreeable children"—drawing up in their little chairs by the fireside, hanging on every paragraph of the adventures of the wandering

prince and *Tom Canty*, the pauper king, eager always for more.

The story, at first, was not entirely understood by the critics. They did not believe it could be serious. They expected a joke in it somewhere. Some even thought they had found it. But it was not a joke; it was just a simple tale—a beautiful picture of a long-vanished time. One critic, wiser than the rest, said:

“The characters of those two boys, twin in spirit, will rank with the purest and loveliest creations of child-life in the realm of fiction.”

Mark Twain was now approaching the fullness of his fame and prosperity. The income from his writing was large; Mrs. Clemens possessed a considerable fortune of her own; they had no debts. Their home was as perfectly appointed as a home could well be; their family life was ideal. They lived in the large hospitable way which Mrs. Clemens had known in her youth, and which her husband, with his Southern temperament, loved. Their friends were of the world's chosen, and they were legion in number. There were always guests in the Clemens home; so many, indeed, were constantly coming and going that Mark Twain said he was going to set up a private bus to save carriage hire. Yet he loved it all dearly, and for the most part realized his happiness.

Unfortunately, there were moments when he forgot that his lot was satisfactory and tried to improve it. His *Colonel Sellers* imagination, inherited from both sides of his family, led him into financial adventures which were generally unprofitable. There were no silver mines in the East into which to empty money and effort, as in the old Nevada days, but there were plenty of other things, inventions, stock companies, and the like.

When a man came along with a patent steam-generator which would save ninety per cent. of the usual coal-supply, Mark Twain invested whatever bank surplus he had at the moment, and saw that money no more forever.

After the steam-generator came a steam-pulley, a small affair, but powerful enough to relieve him of thirty-two thousand dollars in a brief time.

A new method of marine telegraphy was offered him by the time his balance had grown again, a promising contrivance, but it failed to return the twenty-five thousand dollars invested in it by Mark Twain. The list of such adventures is too long to set down here. They differ somewhat, but there is one feature common to all—none of them paid. At last came a chance in which there was really a fortune: one Alexander

Graham Bell, an inventor, one day appeared, offering stock in an invention for carrying the human voice on an electric wire. But Mark Twain had grown wise, he thought. Long after, he wrote:

I declined. I said I did not want any more to do with wildcat speculation. . . . I said I did n't want it at any price. He (Bell) became eager; and insisted I take five hundred dollars' worth. He said he would sell me as much as I wanted for five hundred dollars; offered to let me gather it up in my hands and measure it in a plug-hat; said I could have a whole hatful for five hundred dollars. But I was a burnt child and resisted all these temptations—resisted them easily; went off with my money; and next day lent five thousand of it to a friend who was going to go bankrupt three days later.

It was the chance of fortune thus thrown away which perhaps led him to take up later with an engraving process—an adventure which lasted through several years and ate up a heavy sum. Altogether, these experiments in finance cost Mark Twain a fair-sized fortune, though after all they were as nothing compared with the great type-machine calamity which we shall hear of in a later chapter.

Fortunately, Mark Twain was not greatly upset by his losses. They exasperated him for the moment, perhaps, but his violence would pass presently, and the whole matter be put aside forever. His work went on with slight interference. Looking over his Mississippi chapters one day, he was taken with a new interest in the river, and decided to make the steamboat trip between St. Louis and New Orleans, to report the changes that had taken place in his twenty-one years of absence. His Boston publisher, Os-good, agreed to accompany him, and a stenographer was engaged to take down conversations and comments.

At St. Louis they took passage on the steamer *Gold Dust*—Clemens under an assumed name, though he was promptly identified. In his book he tells how the pilot recognized him, and how they became friends. Once, in later years, he said:

“I spent most of my time up there with him. When we got down below Cairo, where there was a big full river,—for it was high-water season, and there was no danger of the boat hitting anything so long as she kept in the river,—I had her most of the time on his watch. He would lie down and sleep, and leave me there to dream that the years had not slipped away; that there had been no war, no mining days, no literary adventures; that I was still a pilot, happy and care-free as I had been twenty years before.”

To heighten the illusion, he had himself called

regularly with the four-o'clock watch, in order not to miss the mornings. The points along the river were nearly all new to him, everything had changed, but during high water this mattered little. He was a pilot again—a young fellow in his twenties, speculating on the problems of existence and reading his fortunes in the stars. The river had lost none of its charm for him. To Bixby he wrote: "I'd rather be a pilot than anything else I've ever been in my life. How do you run Plum Point?"

He met Bixby at New Orleans. Bixby was a captain now, on the splendid new Anchor Line steamer *City of Baton Rouge*, one of the last of the fine river-boats. Clemens made the return trip to St. Louis with Bixby on the *Baton Rouge*—almost exactly twenty-five years from their first trip together. To Bixby it seemed wonderfully like those old days back in the fifties.

"Sam was making notes in his memorandum book, just as he always did," said Bixby, long after, to the writer of this history.

Mark Twain decided to see the river above St. Louis. He went to Hannibal to spend a few days with old friends—"delightful days," he wrote home, "loitering around all day long, and talking with gray heads who were boys and girls with me thirty or forty years ago." Then he took boat for St. Paul and saw the upper river, which he had never seen before.

He worked at the Mississippi book that summer at the farm, but did not get on very well, and it was not until the following year, 1883, that it came from the press. Osgood published it, and Charles L. Webster, who had married Mark Twain's niece Annie, daughter of his sister Pamela, looked after the agency sales. Mark Twain, in fact, was preparing to become his own publisher, and this was the beginning. Webster was a man of ability, and the book sold well.

"Life on the Mississippi" is one of Mark Twain's best books—one of those which will live longest. The first twenty chapters are not excelled in quality anywhere in his writings. The remainder of the book has an interest of its own, but it lacks the charm of those memories of his youth—the mellow light of other days which enhances all of his better work.

CHAPTER XXXII

MARK TWAIN BECOMES A PUBLISHER

EVERY little while Mark Twain had a fever of play-writing, and it was about this time that he collaborated with W. D. Howells on a second *Colonel Sellers* play. It was a lively combination. Once Howells said to the writer:

"Clemens took one scene and I another. We had loads and loads of fun about it. We cracked our sides laughing over it as we went along. We thought it mighty good, and I think to this day it was mighty good."

But actors and managers did not agree with them. Raymond, who had played the original *Sellers*, declared that in this play the *Colonel* was not merely a visionary, but a lunatic. The play was offered elsewhere, and finally Mark Twain produced it at his own expense. But perhaps the public agreed with Raymond, for the venture did not pay.

It was about a year after this (the winter of 1884-5) that Mark Twain went back to the lecture platform—or rather he joined with George W. Cable in a reading tour. Cable had been giving readings on his own account from his wonderful Creole stories, and had visited Mark Twain in Hartford. While there he had been taken down with the mumps, and it was during his convalescence that the plan for a combined reading tour had been made. This was early in the year; the tour was to begin in the autumn.

Cable, having quite recovered in the meantime, conceived a plan to repay Mark Twain's hospitality. It was to be an April fool—a great complimentary joke. A few days before the first of the month he had a "private and confidential" circular letter printed, and mailed it to one hundred and fifty of Mark Twain's friends and admirers in Boston, New York, and elsewhere, asking that they send the humorist a letter, to arrive April first, requesting his autograph. It would seem that each one receiving this letter must have responded to it, for on the morning of April first an immense pile of letters was unloaded on Mark Twain's table. He did not know what to make of it, and Mrs. Clemens, who was party to the joke, slyly watched results. They were the most absurd requests for autographs ever written. He was fooled and mystified at first, then, realizing the nature and magnitude of the joke, he entered into it fully—delighted of course, for it was really a fine compliment. Some of the letters asked for autographs by the yard, some by the pound. Some commanded him to sit down and copy a few chapters from "The Innocents Abroad." Others asked that his autograph be attached to a check. John Hay requested that he copy a hymn, a few hundred lines of Young's "Night Thoughts," etc., and added:

"I want my boy to form a taste for serious and elevated poetry, and it will add considerable commercial value to have it in your handwriting."

Altogether, the reading of the letters gave Mark Twain a delightful day.

The platform tour of Clemens and Cable was a success that fall. They had good houses, and the work of these two favorites, read by the authors of it, made a fascinating program.

They continued their tour westward as far as Chicago and gave readings in Hannibal and Keokuk. Orion Clemens and his wife once more lived in Keokuk, and with them Jane Clemens, brisk and active for her eighty-one years. She had visited Hartford more than once and enjoyed "Sam's fine house," but she chose the West for her home. Orion Clemens, honest, earnest, and industrious, had somehow missed success in life. The more prosperous brother, however, made an allowance ample for all. Mark Twain's mother attended the Keokuk reading. Later, at home, when her children asked her if she could still dance (she had been a great dancer in her youth), she rose and, in spite of her fourscore years, tripped as lightly as a girl. It was the last time that Mark Twain was to see her in full health.

At Christmas time Cable and Clemens took a fortnight's holiday, and Clemens went home to Hartford. There a grand surprise awaited him. Mrs. Clemens had made an adaptation of "The Prince and the Pauper" for the stage, and his children, with those of the neighborhood, had learned the parts. A stage, with a pretty drop-curtain and very good scenery indeed, had been set up in a large room in George Warner's home. Clemens arrived in the late afternoon and felt an air of mystery in the family, but did not guess what it meant. By and by he was led across the grounds to George Warner's house and placed in a seat directly fronting the stage. Then presently the curtain went up, the play began, and he knew. As he watched the little performers playing so eagerly the parts of his story, he was deeply moved and gratified.

It was only the beginning of "The Prince and the Pauper" production. The play was soon repeated, Clemens himself taking the part of *Miles Hendon*. In a "biography" of her father which Susy began a little later she wrote:

Papa had only three days to learn the part in, but still we were all sure he could do it. . . . I was the prince, and Papa and I rehearsed two or three times a day for the three days before the appointed evening. Papa acted his part beautifully, and he added to the scene, making it a good deal longer. He was inexpressibly funny, with his great slouch hat and gait—oh, such a gait!

Susy's sister Clara took the part of *Lady Jane Grey*, while little Jean, aged four, in the part of a court official, sat at a small table and constantly signed state papers and death-warrants.

MEANTIME, Mark Twain had really become a publisher. His nephew by marriage, Charles L. Webster, who with Osgood had handled the Mississippi book, was now established under the firm name of Charles L. Webster and Co., Samuel L. Clemens being the company. Clemens had another book ready, and the new firm was to handle it throughout.

The new book was a story which Mark Twain had begun one day at Quarry Farm nearly eight years before. It was to be a continuation of the adventures of *Tom Sawyer* and *Huck Finn*, especially of the latter as told by himself. But the author had no great opinion of the tale and presently laid it aside. Then, some seven years later, after his trip down the river, he had felt again the inspiration of the old days, and the story of *Huck's* adventures had been continued and brought to a close. The author believed in it by this time, and the firm of Webster and Co. was really formed for the purpose of publishing it.

Mark Twain himself took an active interest in the process. From the pages of "Life" he selected an artist—a young man named E. W. Kemble, who would later become one of our foremost illustrators of Southern character. He also gave attention to the selection of the paper and the binding—even to the method of canvassing for the sales.

Mark Twain was making himself believe that he was a business man, and in this instance, at least, he seems to have made no mistakes. Some advanced chapters of the story appeared serially in *THE CENTURY*, and the public was eager for more. By the time *THE CENTURY* chapters were finished, the forty thousand advance subscriptions for the book had been taken, and *Huck Finn's* own story, so long pushed aside and delayed, came grandly into its own. Many grown-up readers and most critics declared that it was greater than the *Tom Sawyer* book, though the younger readers generally like the first book the best, it being rather more in the juvenile vein. *Huck's* story, in fact, was soon causing quite grown-up discussions—discussions as to its psychology and moral phases, matters which do not interest small people, who are always on *Huck's* side in everything, and quite willing that he should take any risk of body or soul for the sake of *Nigger Jim*. Poor vagrant Ben Blankenship, hiding his runaway negro in an Illinois swamp, could not dream that his humanity would one day supply the moral episode for an immortal book!

As literature the story of *Huck Finn* holds a higher place than that of *Tom Sawyer*. As stories they stand side by side, neither complete

without the other, and both certain to live as long as there are real boys and girls to read them.

Mark Twain was now a successful publisher, but his success thus far was nothing to what lay just ahead. One evening he learned that General Grant, after heavy financial disaster, had begun writing the memoirs which he, Clemens, had urged him to undertake some years before. Next morning he called on the general to learn the particulars. Grant had been induced by the editors of the famous war series then appearing in *THE CENTURY MAGAZINE* to contribute several articles, and felt in a mood to continue the work. He had discussed with *THE CENTURY* publishers the matter of a book. Clemens suggested that such a book should be sold only by subscription, and prophesied its enormous success. General Grant was less sure. His need of money was very great, and he was anxious to get as much return as possible, but his faith was not large. He was inclined to make no special efforts in the matter of publication. But Mark Twain prevailed. Like his own *Colonel Sellers*, he talked glowingly and eloquently of millions. He first offered to direct the general to his own former subscription publisher at Hartford, then finally proposed to publish it himself, offering Grant seventy per cent. of the net returns, and to pay all office expenses out of his own share.

Of course there could be nothing for any publisher in such an arrangement, unless the sales were enormous. General Grant realized this, and at first refused to consent. Here was a friend offering to bankrupt himself out of pure philanthropy, a thing he could not permit. But Mark Twain came again and again, and finally persuaded him that, purely as a business proposition, the offer was warranted by the certainty of great sales.

So the firm of Charles L. Webster and Co. undertook the Grant book, and the old soldier, broken in health and fortune, was liberally provided with means that would enable him to finish his task with his mind at peace. He devoted himself steadily to the work—at first writing by hand, then dictating to a stenographer that Webster and Co. provided. The disease from which he was suffering made fierce ravages, but he "fought it out on that line," and wrote the last pages of his memoirs by hand when he could no longer speak aloud. Mark Twain was much with him, and cheered him with anecdotes and with news of the advance sale of his book. In one of Mark Twain's memoranda of that time he writes:

To-day (May 26) talked with General Grant about his and my first great Missouri campaign in 1861. He surprised an empty camp near Florida, Missouri, on

Salt River, which I had been occupying a day or two before. How near he came to playing the d—— with his future publisher!

At Mount McGregor, a few weeks before the end, General Grant asked if any estimate could now be made of the sum which his family would obtain from his work, and was deeply comforted by Clemens's prompt reply that more than one hundred thousand sets had already been sold, the author's share of which would exceed one hundred and fifty thousand dollars. Clemens added that the gross return would probably be twice as much more.

The last notes came from Grant's hands soon after that, and a few days later, July 23, 1885, his task completed, he died. To Henry Ward Beecher Clemens wrote:

"One day he put his pencil aside and said there was nothing more to do. If I had been there, I could have foretold the shock that struck the world three days later."

In a memorandum estimate made by Mark Twain soon after the canvass for the Grant memoir had begun he had prophesied that three hundred thousand sets of the book would be sold, and that he would pay General Grant in royalties \$420,000. This prophecy was more than fulfilled. The first check paid to Mrs. Grant—the largest single royalty check in history—was for two hundred thousand dollars. Later payments brought her royalty return up to nearly \$450,000. For once, at least, Mark Twain's business vision had been clear. A fortune had been realized for the Grant family. Even his own share was considerable, for, out of that great sale, more than a hundred thousand dollars' profit was realized by Webster and Co.

THAT summer at Quarry Farm was one of the happiest the Clemens family had ever known. Mark Twain, nearing fifty, was in the fullness of his manhood and in the brightest hour of his fortunes. Susy, in her childish "biography" begun at this time, gives us a picture of him. She begins:

We are a happy family! We consist of Papa, Mama, Jean, Clara and me. It is Papa I am writing about, and I shall have no trouble in not knowing what to say about him, as he is a very striking character. Papa's appearance has been described many times, but very incorrectly; he has beautiful curly gray hair, not any too thick or any too long, just right; a Roman nose, which greatly improves the beauty of his features, kind blue eyes, and a small mustache; he has a wonderfully shaped head and profile; he has a very good figure, in short is an extraordinarily fine-looking man. . . .

He is a very good man, and a very funny one; he has got a temper, but we all have in this family; he is the loveliest man I ever saw, or ever hope to see, and oh, so absent-minded!

We may believe this is a true picture of Mark Twain at fifty. He did not look young for his years, but he was still young in spirit and body. Susy tells how he blew bubbles for the children, filling them with tobacco-smoke. Also, how he would play with the cats and come clear down from his study to see how a certain kitten was getting along.

Susy adds that "there are eleven cats at the farm now," and tells of the days' occupations, but the description is too long to quote. It reveals a beautiful, busy life.

Susy herself was a gentle, thoughtful, romantic child. One afternoon she discovered a wonderful tangle of vines and bushes, a still, shut-in corner not far from the study. She ran breathlessly to her aunt.

"Can I have it—can Clara and I have it all for our own?"

The petition was granted, and the place was called Helen's Bower, for they were reading "Thaddeus of Warsaw," and the name appealed to Susy's poetic fancy. Something happened to the "bower"—an unromantic workman mowed it down; but by this time there was a little house there which Mrs. Clemens had built just for the children. It was a complete little cottage when furnished. There was a porch in front with comfortable chairs. Inside were also chairs, a table, dishes, shelves, a broom, even a stove—small, but practical. They called the little house Ellerslie, out of Grace Aguilar's "Days of Bruce." There alone, or with their Langdon cousins, how many happy summers they played and dreamed away. Secluded by a hillside and happy trees, overlooking the hazy distant town, it was a world apart—a corner of story-book land. When the end of the summer came, its little owners went about bidding their treasures good-by, closing and signing the gates of Ellerslie.

Looking back, now, Mark Twain at fifty would

seem to have been in his golden prime. His family was ideal—his surroundings idyllic. Favored by fortune, beloved by millions, honored now even in the highest places, what more had life to give? When November thirtieth brought his birth-



"HE BLEW BUBBLES FOR THE CHILDREN."

day, one of the great Brahmins, Dr. Oliver Wendell Holmes, wrote him a beautiful poem. Andrew Lang, one of England's foremost critics, also sent verses, while letters poured in from all sides.

And Mark Twain realized his fortune and was disturbed by it. To a friend he said:

"I am frightened at the proportions of my prosperity. It seems to me that whatever I touch turns to gold."

(To be continued.)



A BURNING QUESTION: WHICH WAY SHALL I GO? DOWN—OR UP?

THE SAPPHIRE SIGNET

OR, THE LASS OF RICHMOND HILL

BY AUGUSTA HUIELL SEAMAN

Author of "The Boarded-up House"

CHAPTER XIX

THE MISSING LINKS

"So you thought that, because we were having such a good time in Bermuda, we had forgotten all about the mystery!" laughed Margaret, the next afternoon, at the grand assembly of the Antiquarian Club. They were all gathered in the Charlton Street parlor—all but Mr. Cameron. He had, indeed, fully expected to be present, not intending to go to his office till the following day; but unexpected business had called him there, after all, so he could only send his hearty regrets to the meeting of the club. It seemed like old times for the young folks to be together again in this familiar room. The only wonderful difference was in Margaret. No longer was she ensconced in her accustomed wheel-chair, but in a big "comfy" arm-chair, with her cherished crutches leaning against its arm. No longer did she seem a wan, frail, delicate little invalid, but a brown, rosy, plump, and increasingly energetic young person. But the sweetness of her smile and the shy, trusting expression of her big gray eyes had not changed.

"Yes, I know you all must have thought we 'd forgotten it," she went on; "but we had n't—not for a minute! Only, for several weeks, we did n't seem to make any progress with it at all. We used to inquire of every native Bermudian we met if he or she had ever heard of any one living there by the name of Trenham; but no one seemed to have any ideas at all about it. They 'd say they had n't heard of the name themselves, but would always refer you to some one else, who would turn out to know as little as they did! It was awfully discouraging! Finally, Mr. Cameron suggested that the only way would probably be to go around to all the different parish churches and consult the old parish registers for the lists of births and marriages and deaths. He thought the name had probably died out long ago, and perhaps no relatives or descendants remained, or were even remembered.

"Well, this seemed a big piece of work, of course, and none of us felt quite like attempting it just then, for Mr. Cameron was n't yet a bit well himself, and I was having treatments every day with the big doctor in Hamilton. So we

decided to put it off for a while. And then—meantime—a very unexpected thing happened!

"You know, we were staying at a big hotel about four miles from Hamilton, near Harrington Sound. Mr. Cameron likes it there because it 's out of the city, well away from everything distracting, like the things going on in Hamilton. Part of this hotel is big and new, but another section, where the dining-room is, has been standing for over two hundred years. You can see how old it is by its very looks, and we heard that it was really the old homestead of the proprietor's ancestors.

"The housekeeper is a dear, kindly lady, and we got rather well acquainted with her, because often we had to ask her for different and rather unusual things for me. She was just lovely to me, always, and after a while we had some long, interesting talks with her about Bermuda and the different families living there. And once she took us up to her own apartments, in the old part of the house, and showed us a collection of the most wonderful old furniture and antiques that had been in her own and her husband's families since way, way back. Corinne and her father went just wild over them, for you know how they love antiques!

"Well, one day we thought we 'd ask *her* if she 'd ever heard of any one on the island by the name of Trenham. She said no, she had n't, but, if we were interested to find out, she 'd take us over to the South Shore to see a very old lady there who knew lots and lots about Bermuda history and former people. She said she was driving to Hamilton that morning on some business, but would first take us over to the Jewell Farm, introduce us to old Mrs. Jewell, go on to Hamilton, and come back to get us later. She declared that the old lady would be delighted to have us come, because she was blind now and had very little to entertain her, and she loved to talk to people.

"This seemed too good a chance to lose, and Corinne and I accepted at once. Mr. Cameron had gone off on a fishing-trip, so he could n't be included. We piled into the big, comfy carriage, and you ought to see that great, strapping driver lift me in and out and carry me around! Well, we got to the Jewell Farm over on the South

Shore, and, oh, folks! how I wish you could all see that place! It's simply the most charming old house—two hundred and fifty years old—set high on a hill overlooking that marvelous blue ocean, with a garden all around it that is like the things you dream about! We took some pictures of the house and garden which I'll show you later, but they don't do it anything like justice. You can only get a faint idea of its *real* beauty!

"And the whole house, inside, was filled with the dearest old-time furniture! It nearly set Corinne crazy! But never mind about all that now—we must come to the *best* part! The driver carried me in, and we were introduced to the sweetest old lady you ever saw! She was nearly ninety-five, with snow-white hair, and a dainty lace cap over it. Her eyes were pretty and blue, and you'd hardly guess, to look at her, that she could n't see a thing. If she'd known us all her life, she could n't have received us more cordially, or seemed less surprised to have complete strangers landed on her without any warning. She made us feel at home and acquainted right away, and after a few moments the housekeeper left us alone with her and went on to Hamilton.

"We did n't like to introduce right away the subject we were most interested in, so we chatted with her about her lovely old home, and the furniture in it, and its history. After a while, though, when we could bring it in naturally, we asked her if she had ever known any one by the name of Trenham in Bermuda. She gave the most curious little start, but only said very quietly:

"I would like to know why you ask? Whom do you know of that name?" Well, Corinne and I looked at each other, and I saw we were agreed that it was time to make a bold move, so I said right out that we were very much interested in some one who lived in Bermuda a long while ago and whose name was Alison Trenham.

"Folks, if I live to be a hundred, I'll never forget the strange expression that came over that old lady's face when I spoke that name! For a minute or two she did n't answer—just sat quietly thinking. Then at last she said, still very quietly:

"Yes, I know the name! I have heard of only one Alison Trenham in my life, and that was—*my grandmother!*"

There was a gasp and a start from her listeners, and Margaret laughed as she continued:

"You'd just better believe *we* jumped, too! And I thought Corinne's eyes would pop out of her head—she looked so startled! I just could n't help smiling to myself at her expression, though I was so deep in other things. Then I said:

"Well, Mrs. Jewell, since you *do* know an Alison Trenham, and she was your own grandmother, I guess we'd just better tell you our whole story. For the two Alisons *may* turn out to be the same!" Then, as quickly as I could, I told her all about finding the trunk and the journal, and our Antiquarian Club, and all the discoveries we made afterward, and how we'd come to a snag and could get no further. I even told her how Sarah had burned the original journal. But I did n't say a word about the sapphire signet—just then. I wish you could have seen the expression on her face all the time I was talking! It was as though she were listening to a story so strange that she could n't believe a word of it! I ended by begging her, please, if she could throw the least light on our mystery, to oblige us by doing so, as it was the chief aim of our Antiquarian Club to find the key to the riddle!

"She was silent a long time after I had finished—so long that we were beginning to think she must have fallen asleep, for she had covered her eyes with her hand, and was leaning her elbow on the arm of the chair. But suddenly she spoke, saying very low:

"All this seems like a dream to me! You children have stumbled upon a secret that I supposed no mortal would ever discover in this world! The ways of chance are very mysterious! Yes, it is the same Alison; and since you know so much, I am going to tell you the rest of the story, though she made me solemnly promise, when I was a young girl, that I would never tell a soul. That is why I was hesitating. But I feel certain that, were she to know these circumstances, she would have no real objection to your knowing the whole story. It can harm no one now—least of all herself!

"As I told you, she was my grandmother. I was born in 1820, and she was then a woman sixty years old. My own mother and father died in my infancy, and left me to her care. This was her home, this same old farm, and I came here to live with her. We are a long-lived race, here in Bermuda, and she lived on to be almost ninety-five, as I myself am doing! A few years before she died she told me that she had something on her conscience that she would like to tell me, because she felt that she would die happier, knowing that she had not kept the secret unconfessed to the end. She made me promise I would never disclose it, as some of it had once been of political consequence, and she had always feared its discovery."

"And now, folks, I'm going to tell you the story of Alison in my own words, because I can't remember all of hers!" ended Margaret. Then

she re-settled herself in her big chair and began anew, very much flattered by the breathless attention of her auditors.

"Alison Trenham lived on this same old farm with her grandfather, Archibald Trenham. Her

grandfather, and wanted the worst way to go away from Bermuda altogether and see some of the world. She had an aunt, a Madame Pennington, living down at Flatts (that 's right where our hotel was), and a cousin Betty, and she was very fond of them both. The aunt was like a mother to her, and spoiled her a lot. Well, Alison confided to her aunt that she wanted to go away from Bermuda, but that her grandfather would n't hear of it. And she said she was so crazy to go that sometime she was going to run away!

"The aunt was very much shocked, but finally Alison begged her so hard that she consented to write to a friend of hers in New York, a Madame Mortier, and get her to invite Alison up there for a long visit. Madame Mortier wrote back that she would be very glad to have Alison come, especially as her husband had just lately died and she was very lonely. So that much was arranged, and Alison was delighted. But the difficulty was to get away from Bermuda without her grandfather knowing, for he would never have consented. Alison discovered a way out of this herself, and here comes the exciting part! Alexander, you were *right*, after all, as you 'll see in a moment!"

"Oh, your Uncle Dudley 's right sometimes," grumbled that irrepressible youngster, trying to conceal his satisfaction.

"Now, to go on. One day Alison happened to meet, quite unexpectedly, a neighbor of theirs, a young fellow named Harrington Ord—"

"'H'!" shouted the listening ones, simultaneously.

"Yes, you 're right! that was 'H'! He had been away on a cruise with his uncle, George Ord, in his uncle's ship, the *Lady*. Harrington said they had only touched at St. George's for a day or so to take on a cargo of salt, and would then be off again for America. Then Alison saw her chance. She begged Harrington to ask his uncle if she might be taken aboard to go with



"'FOR A MINUTE OR TWO SHE DID N'T ANSWER.'"

parents had both been lost at sea when she was little, and that 's why she was living with him. He was a queer, crabby sort of an old man, and had never loved Alison because he was so disappointed she had n't been a boy. She was a big, beautiful-looking, athletic girl, and he had had her taught to ride, and swim, and sail a boat, and do most of the things boys generally do, besides learning to read and write and some Latin and French. It was his whim that she should be educated like a boy, even if she was n't one.

"But she was restless and discontented and headstrong, and hated her life there with her

them without letting her grandfather know. She knew the uncle and her grandfather had some standing quarrel between them, and that George Ord would not be sorry to do anything to get the best of the old man. Harrington hesitated about it, then finally confided to her the news that his uncle was engaged in a strange plot—

"The gunpowder!" exclaimed the audience.

"Yes, the very thing! Alexander was exactly right in his guess! George Ord was planning to steal the gunpowder the very next night, and all the details were arranged except one thing, and that was puzzling them all dreadfully. It was this: the governor slept with the keys of the magazine under his pillow, and how to get at them without disturbing him, nobody could think. Some one had suggested putting a heavy sleeping-powder in his food, but that was all but impossible, as no one knew any of his servants or could get into his kitchen. Harrington had the powder in his pocket, and, at his wits' end, he showed it to Alison. She had an idea right away. She told him to give it to her, and she would see that it got to its proper destination all right, if, in return, his uncle would take her secretly to America.

"He declared that his uncle would be only too delighted to reward her in that way, and everything was arranged. She was to go next day to her aunt's as if for a week's visit. That same afternoon she would take a little cat-boat and sail by herself up to St. George's, and be taken aboard the *Lady* at sundown, as she was setting sail, and when no one was observing. But first she intended to stop at the governor's mansion and make a call on his niece, whom she knew rather well.

"Everything went off like clockwork! Her grandfather suspected nothing. She got to her aunt's and bade her good-by, sailed up to St. George's in her little dinghy, called on the governor's niece, and, before she left, went down to the kitchen to see the colored cook Dinah, who was a sister of her grandfather's cook and was rather fond of Alison. She found, just as she had expected, that Dinah was preparing the governor's little afternoon snack of cake and a glass of wine. When Dinah was n't looking, she quietly dropped the powder in the wine, and the game was won! Later, as she went out, she saw him drinking it.

"Well, the governor slept like a log that night, and you all know how successful the rest of the scheme was! Captain Ord was so grateful to Alison that he could n't do enough for her. He landed in New York, and Harrington escorted her to Richmond Hill, the home of Madame Mor-

tier. The old song, 'The Lass of Richmond Hill,' was very popular just then, and Harrington kept teasing Alison by whistling and singing it constantly, and saying *she* was now that 'lass'!

"Madame Mortier was lovely to her at first, and seemed so delighted to have her there. But Alison did n't have a very lively time, because Madame Mortier lived a very secluded and quiet life, and her house was way off from the city, and she never went anywhere. And Alison found out, too, that she was a strict Tory, and hated Washington and the rebels, and felt very bitter about the war that was just commencing. Now, Alison had heard a lot about Washington from Captain Ord and Harrington, who both admired him terrifically, and she herself had begun to feel a great respect for the rebel leader. But when she spoke in praise of him, one day, Madame Mortier just 'jumped on her,' as Alexander would say, and almost went crazy denouncing him.

"Well, by and by Alison began to feel dreadfully lonely and homesick, and just longed to go back to Bermuda, and wished she'd never come away! But getting back was more difficult than coming to New York. She did n't like to tell Madame Mortier she was tired of her and wanted to leave, for she had been invited to stay a year, at least, as a companion to the old lady. Then something happened that changed the whole face of affairs for her—two things, in fact!

"A sailor from Captain Ord's ship turned traitor some months after the gunpowder affair, and in Corbie's tavern let it all out and told how Alison had been mixed up in the plot,—or at least, that he suspected she was, for he did n't actually know about the governor and the sleeping-powder. This talk got round to the steward, whom we all know about, and finally was hinted at by him to Madame Mortier. She began to treat poor Alison very coldly and suspiciously, without, however, telling her the real reason. She evidently thought Alison was some kind of a spy! And Alison never guessed the reason till Harrington gave her the hint that night under her window.

"Anyhow, that was when she first began to feel uneasy, and as if things had changed in the house and she was not altogether safe there. But the climax came one stormy winter day when she and Madame Mortier were driving home along Greenwich road and saw ahead of them a coach whose wheel had come off and whose horses were snorting and kicking with fright. The driver could seem to do nothing with them. Alison got out, rushed to the horses, and held them steady till they quieted down. She knew horses well and just how to treat them. Then, while the

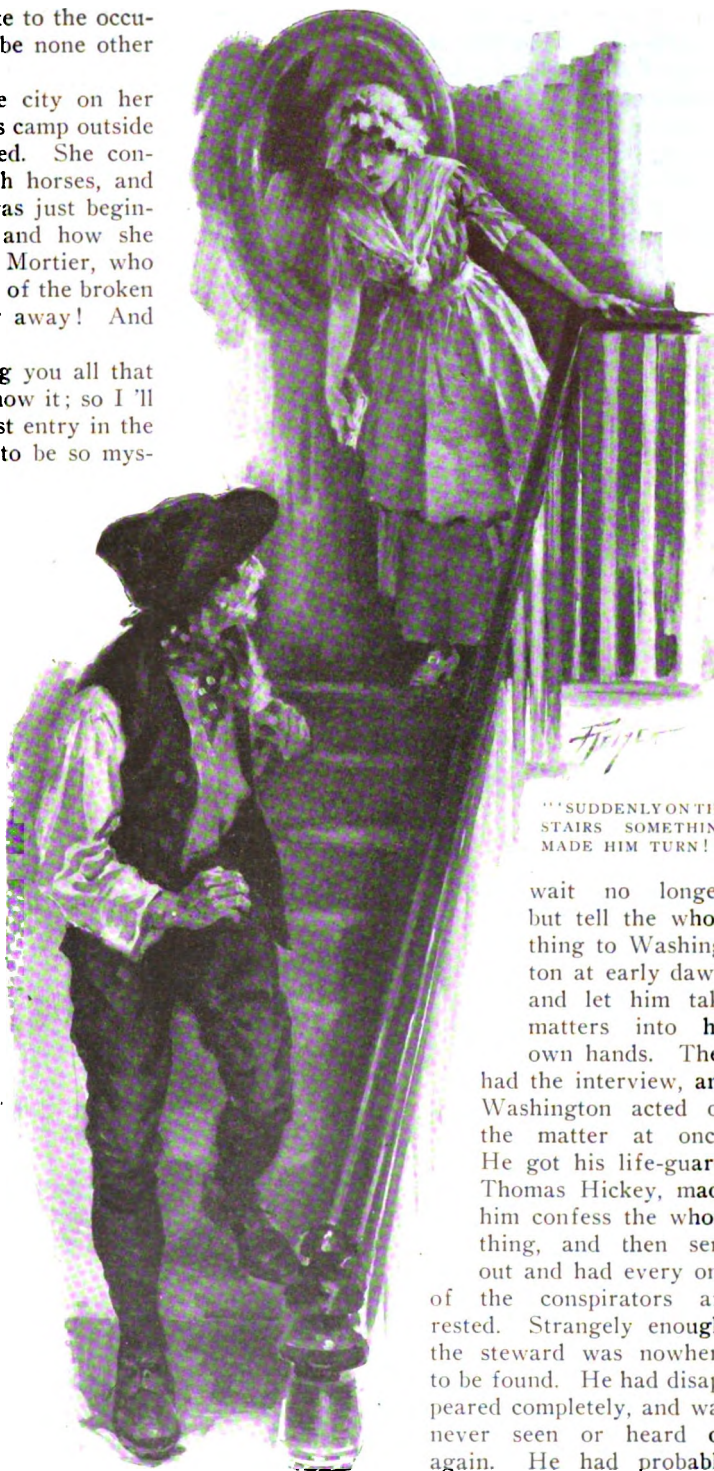
wheel was being adjusted, she spoke to the occupant of the coach, who proved to be none other than Lady Washington!

"She was traveling through the city on her way from Virginia to her husband's camp outside Boston when the accident happened. She congratulated Alison on her skill with horses, and asked her about herself. Alison was just beginning to tell her about Bermuda and how she longed to go back, when Madame Mortier, who had just learned about the occupant of the broken coach, rushed up and dragged her away! And then things got worse and worse!

"Now, there 's no need of telling you all that happened after that, because we know it; so I 'll skip at once to the night of that last entry in the journal, and explain how it came to be so mysteriously broken off. While Alison was sitting there writing, she suddenly heard again the mysterious footsteps, just as she had that time before. She was horribly nervous, but she suspected something wrong and crept to the door and opened it to peep out. And there, sure enough, was the steward, come back from Corbie's tavern, and evidently going down to the cellar again! Alison was scared to death, but, almost unconsciously, she found herself creeping after him, her journal still in her hand.

"Suddenly on the stairs something made him turn—and he saw her! Before she could cry out he made one leap and clapped his hand over her mouth. Then with the other he tried to get hold of the journal. She began to struggle and twist, and try to keep it away from him, and he whispered that if she made a sound he would kill her right there! Still she kept struggling, but at last he got hold of it and gave it a wrench. Of course it came in half, and at the same moment she got free from him and ran like mad to her own room and locked herself in.

"She hid the half of the journal she had kept hold of in the bottom of her trunk, and stayed for hours shivering with fright and listening at the door. Then, at last, not hearing anything more, she crept out, and rushed to Phebe's room, and told her all about it. They decided that it was best to



"SUDDENLY ON THE STAIRS SOMETHING MADE HIM TURN!"

wait no longer, but tell the whole thing to Washington at early dawn, and let him take matters into his own hands. They had the interview, and Washington acted on the matter at once. He got his life-guard, Thomas Hickey, made him confess the whole thing, and then sent out and had every one of the conspirators arrested. Strangely enough, the steward was nowhere to be found. He had disappeared completely, and was never seen or heard of again. He had probably thought it wise to take flight in the night. Alison always thought, too, that he was intending to run away when he did, anyhow,

without warning any one, because he had appropriated a lot of the gold and money that was to be used in paying the conspirators. That was what he had kept hidden in the beam, and he had removed it all that very night, preparatory to making off with it.

"Early that morning, Washington sent Phœbe back to the city to stay with her father, as she would be safer there. And as he thought the house no longer a safe place for his wife, either, he arranged to despatch her at once with a strong escort to Philadelphia. Alison had told him her own story, explained how she aided in the gunpowder plot, and begged him to send her back to Bermuda if he could. He was so grateful to her for the assistance which she had twice given that he told her he would send her to Philadelphia with Lady Washington, and there would arrange that she should sail for her home as soon as was possible.

"So Alison packed her little trunk, and without even bidding Madame Mortier good-by (for of course she did n't dare see her) she left that morning with Lady Washington, and never again in all her life looked upon Richmond Hill. In Philadelphia she was fortunate enough to catch a vessel sailing at once for Bermuda; but before she got to her home one other accident was to happen to her. The ship ran into a terrific storm and was completely dismasted. It almost foundered, but, after drifting around helplessly for more than a week, the passengers and crew were at last rescued by another vessel, leaving all their belongings behind on the wreck, and finally were landed in Bermuda.

"She went straight to her aunt first, for she did not dare go to her grandfather, thinking he had never forgiven her for running away. But her aunt told her that her grandfather, though terribly angry with her at first, was now very, very ill, and kept constantly calling for her. So she returned to him and was forgiven, and nursed him tenderly till he died, leaving her the fine old farm. A few years later she married Harrington Ord, for he had always admired and loved her. He died, in later years, by falling from the mast of the vessel of which he was captain, and Alison was left alone with one daughter, who also married, after a time, and it was *her* daughter, old Mrs. Jewell, who told us the story. Alison lived all her life in secret terror lest her part in the gunpowder plot should ever be discovered by the Bermudians, for she felt that she had been disloyal to her country in the part she played. Yet she never wholly regretted it, because of the intense admiration she always felt for Washington, and her gratitude to him for his timely res-

cue of her. Madame Mortier died soon after her departure, and never knew about the defeat of her beloved Tories.

"So that is the end of the story, folks, and I guess I've explained everything!"

"No you have n't!" said Alexander, promptly. "What about that half of the diary that we found in the beam? Put us wise to that!"

"Well, of course, that 's one of the things we can't be absolutely certain about, but can only guess at. The steward had gone off with that half, and Alison never saw it again. She always wondered what became of it. We think, though, that the steward must have come back that night looking for the slip of paper that he had forgotten or lost. He evidently thought it might be left in his hiding-place, and was on the way to hunt it up. Then he had the encounter with Alison, and got hold of that half of her diary. He must have taken it to the cellar, examined it hurriedly, written on it that mysterious sentence, and thrown it into the opening where he hid his things. Probably he looked for his paper, and, not finding it, thought he 'd dropped it elsewhere. We think likely he did n't suspect that any one had discovered the place in the beam. That 's the only explanation that seems possible."

"Yes," objected Alexander, still unconvinced, "but how came it to remain there all that time untouched? Did n't they go and search the beam afterward? Did n't any one else ever know about it?"

"No, it seems that Phœbe and Alison, in their hurry that morning, did not think to tell Washington where they had found the paper. They did n't have time—everything had to be done so quickly. They just gave it to him and told who the conspirators were. Then Phœbe was sent right off, and Alison went away, too, and, of course, nobody else ever knew about it or suspected it. So it lay through all the years till Alexander unearthed it! Is n't it too wonderful!"

"Then that gink of a steward must have beat it out for keeps!" commented Alexander. "Guess he did n't think it 'd be healthy for him to shine about those parts again, after he 'd got away with all the swag! He was *some* pippin, he was!"

"Well," ended Margaret, "now you know all the mystery and the history of Alison Trenham, and I hope you 're satisfied!"

"*Satisfied!*" ejaculated Bess, sitting up very straight. "When you have n't said one word about the *sapphire signet*—the most important thing of all? I guess *not!*"

"I was wondering when you 'd begin to be curious about that," commented Margaret, with

her tantalizing smile. "Since you *do* seem a little anxious on the subject, I 'll go on with the second half of the story. Well, as I 've hinted, we did n't say a word about the signet to the old lady, and she did n't mention it in her account either. But when she had finished, Corinne asked her if there was anything else she knew of that had troubled Alison's mind—whether she 'd ever heard her grandmother speak of something she 'd lost. And at that Mrs. Jewell looked awfully surprised, and said no, her grandmother had never spoken of anything else, and what did we mean?"

"Then we told her all about the signet, and how we 'd found it, and how valuable it was, and how we wanted above everything to return it to Alison's descendant, and were so glad we 'd found her at last. Well, if you 'll believe me, Mrs. Jewell looked simply stunned for a while, as if she could n't trust her senses! And we had the hardest time convincing her that the signet was really hers and she must take it. She insisted it ought to be ours, since we had found it. But finally we managed to convince her that she was its rightful owner, and told her that Mr. Cameron would get it from the safe at the hotel and bring it over to her the next day."

"But why do you suppose Alison never told her about it?" interrupted Jess.

"That 's just what we all could n't fathom for a while, till at last Mrs. Jewell explained it in this way. Of course, when Alison was shipwrecked and rescued, she naturally supposed her trunk went down to the bottom of the ocean with the wreck. She told her grandfather that they had had to cling to the decks for several days, and never dared to go down to the cabins, for most of them were full of water. So she could n't get at her trunk to take out anything. We think that when she realized that the signet was lost forever, and after her grandfather had forgiven her for everything (including that, no doubt), she just forgot all about the matter, and either did n't think of it again, or else did n't want to. What troubled her most was the fear that the second half of her journal would sometime be discovered and deciphered, and she, perhaps, be considered a traitor for twice giving aid to Washington.

"But now listen to the best part of the story, which comes last! We had asked Mrs. Jewell to say nothing just yet about what we 'd told her, and when the housekeeper came back for us, the old lady bade us good-by as calmly as though we had n't just given her the surprise of her life. But on the drive to the hotel we asked a few questions about her and found out, to our aston-

ishment, that old Mrs. Jewell was really in very straitened circumstances. For years she had supported herself by doing the most beautiful lace-work, and had earned enough to live on. But since her blindness came, her money had gradually disappeared, and she had had to borrow on the farm and the lovely old furniture. The housekeeper said she was afraid it would n't be long before she would lose everything. Every one was so sorry for her and wanted to help, but she



CORINNE WEARS THE
SAPPHIRE SIGNET.
(SEE NEXT PAGE.)

was very proud and would accept nothing from them. No one could imagine what she would do if she had to give up her old home.

"It set us thinking hard, of course, and we told Mr. Cameron about it that night. He only said we must leave it to him, and he 'd think out a scheme. Next day we three drove over there with the signet, and placed it in old Mrs. Jewell's hands. And right then and there Mr. Cameron told her that, if she cared to sell it to him, he 'd be only too delighted to buy it. And he offered her a sum that was enough to keep her living comfortably where she was for the rest of her days.

"You should have seen that poor old lady's face! She begged and protested that he should not give so much, that she could not accept it.

But he assured her that he knew positively it was the real value of the signet, and, to prove it, read her a letter he'd received from some authority in such things. She gave in at last, and we left her with that big, fat check in her hands—the happiest woman in all Bermuda!"

"But what has become of the sapphire signet?" demanded her listeners, as Margaret paused.

"Here it is!" said Corinne, quietly, and she pulled from under the neck of her dress a thin golden chain. There on the end dangled the wonderful sapphire signet, more beautiful than ever since it had been cleaned and polished.

"Father has given it to me, and I'm going to keep it always, in memory of the long-ago Alison and the strange way we stumbled on her mystery. I shall not wear it all the time, for it's too rare and valuable to run the risk of losing. But I put it on to-day in honor of the most satisfactory meeting the Antiquarian Club ever held!"

It was about noon of a day a week or two later that Corinne and Margaret stood together at the open window of the Charlton Street parlor. A light breeze flapped the awnings to and fro, a warm midday sun shone on the pavements outside, and the droning sound of busy Varick Street came distinctly to them as they stood looking out. The twins were still at high school, but Corinne had not returned there, as she was expecting to study up during the summer and in the autumn pass the examinations she was now missing. So, during these idle days, she spent the greater part of her time with Margaret. Since their long Bermuda weeks together, they had grown into even closer intimacy, and sisters could not have loved each other with deeper devotion.

Leaning on her crutches, Margaret idly plucked the dead leaves from a geranium in the window-box, and Corinne stood twisting one of the younger girl's dark curls around her finger. Presently she said:

"Father had a letter from old Mrs. Jewell this morning. She says words would be impossible to describe how happy she is. She thinks it just marvelous that we girls were led to do what we did, for she was in desperate straits when we first came. She declares she would never have accepted it as a charity, but it was really help from her own dead kindred sent through us. She considers it an absolute *miracle*!"

"Is n't it strange!" began Margaret. "That's

the exact word Mother used last night when we were talking it over. She said it all seemed like a miracle to her—the way you came into our lives, and walked straight to the heart of the mystery that very first day; the way we worked it all out and restored what was her own to Alison's granddaughter just in the nick of time; and best of all, what's happened to me!"

"Well, I was n't left out in the miracle way, either," laughed Corinne; "for I've had the loveliest adventure imaginable, and made the very dearest friend of all my life!" She squeezed Margaret's hand, and the two girls looked for one long, understanding moment into each other's eyes. After a quiet interval Corinne spoke again:

"Margaret, there's something I never told you! No one but Father knows it. But I'm going to tell you now. Do you know what I plan to be when I am older?"

Margaret looked up at her in quick interest, and said: "No! Tell me!"

"Well, it's my ambition to be a writer. Father says I have some gift in that direction, and I am constantly practising at it. But, after I've learned how, and can really write what people might like to read, the first story I'm going to tell is the one about Alison Trenham and the wonderful way she helped to rescue Washington at the time he was in such danger!"

"Oh, that's perfectly splendid!" cried Margaret. "I wish I could do something like that, but I'm afraid it's n't in me. Shall I tell you *my* chief ambition, Corinne? I want to get so strong that I can join a basket-ball team—and beat the twins at it!"

"Bless your heart, Honey!" exclaimed Corinne, "you're going to be the *captain* of that team, I'm willing to wager!"

Just at that moment Alexander came swinging down the street on his way home to luncheon, whistling the tune that had come to be such a momentous one in their lives. Margaret smiled as she heard it, and suddenly turned to her friend:

"Corinne, I want you to promise me something! When you come to write the story of Alison, I want you to call it 'The Lass of Richmond Hill'! I think that would be the most appropriate title for it. Will you?"

Corinne thought it over a moment, then she said, slowly:

"Yes, I think you're right! I promise to call it—'The Lass of Richmond Hill'!"

THE END.



JACK BARRY, SECOND BASEMAN OF THE BOSTON "RED SOX," FORMERLY SHORT-STOP OF THE PHILADELPHIA "ATHLETICS."



JOHNNY EVERS, SECOND BASEMAN OF THE BOSTON "BRAVES," ONE OF THE BRAINIEST PLAYERS IN THE GAME.



EDDIE COLLINS, FORMERLY STAR SECOND BASEMAN OF THE "ATHLETICS," NOW A CHICAGO IDOL.

PLAYING THE INFIELD

BY BILLY EVANS

Umpire in the American League

Some of the Fielding Stars at Various Positions Give their Ideas on Fielding

THIRD base is regarded by many people as the hardest position in the infield to play. Possibly this impression has been created by the fact that third base is always referred to as "the difficult corner." Ball players as a rule do not look upon third base as the most difficult position in the infield.

"Hobe" Ferris, now out of the big league, began his career as a second baseman. At that position Ferris was regarded as one of the greatest fielders in the business. His work as a member of the infield of the Boston team in the American League was uniformly brilliant. Late in his career Ferris was sold to the St. Louis "Browns," who boasted of a corking good second baseman in Jimmy Williams. Manager McAleer asked Ferris if he would n't try his hand at third base. For a time he positively refused. He finally con-

sented to play a few games, but insisted he would never be the regular third baseman. After he had been playing the position a week, I asked him how he liked the job.

"I can't imagine how I ever passed up third base when I was a kid," remarked Ferris. "Why, playing third is just like a vacation! Never again will I play second." And he never did during the remainder of his big-league career.

Not so many years ago first base was regarded as the cinch position in the infield. Any big fellow who could catch a thrown ball with any degree of accuracy was usually nominated for the initial sack. It was the last resort for down-and-out catchers. But first base is no longer regarded as a soft spot. In fact, it is just as difficult nowadays to secure a capable man for that position as for any other place on the infield. First base

has become a decidedly important cog in the workings of every well-regulated ball team. The first baseman has a lot more to do than merely to be able to catch thrown balls. He must be able to think quickly, must have a good arm, and must be able to figure out in advance the many plays that start at first base.

Most ball players regard either short-stop or second base as the hardest positions to fill. Many seem to think second base the hardest, while perhaps just as many insist that short-stop is a trifle the more difficult. I once asked Eddie Collins, conceded to be one of the greatest second basemen the game has ever known, which position he regarded as the hardest to play.

"Second base keeps you pretty busy, but I



BOBBY WALLACE, FOR TWENTY YEARS A STAR
BIG-LEAGUE INFIELDER.

rather think that short-stop is the most difficult position to play," was his reply.

"Playing short-stop is no cinch, but I would rather look after short-stop than second base," is the way Jack Barry, famous short-stop of the "Athletics," summed up the situation when I asked him for his opinion.

Team-work is one of the greatest essentials in baseball. Put a brilliant second baseman on a team, and give him a mediocre short-stop, and he will not seem a very remarkable performer. A brilliant player at either position must have an equally brilliant partner to bring out the best that is in him. Take all the great infields of the past,

and each had a star player at short and second. Many of them boasted a star at every one of the four positions. Just now I recall such pairs, however, as Parent and Ferris of the old Boston Americans, Tinker and Evers of Chicago, Barry and Collins of the "Athletics," Wagner and Ritchey of Pittsburgh, Maranville and Evers of the Boston Nationals.

The part that a brilliant short-stop plays, in relation to an equally brilliant second baseman, was forcibly brought to my attention several years ago. Jack Barry had been badly spiked,—an injury that kept him out of the game for more than a month. It was necessary for Manager Mack to use one of his recruits. All winning teams make a lot of double plays; and most of these are pivoted around second base. In a majority of them, either the short-stop or the second baseman plays the big part, and in a great many the two figure equally. The moment Barry was forced to leave the "Athletics" infield, Collins slowed up. But this change in the form which he displayed was not due to any slump on his part; it was simply because he could not work smoothly with the recruit short-stop. It was impossible for Eddie to make the quick plays around second which he achieved with Barry, because the recruit short-stop was not equal to the occasion. Instead of tossing the ball in the general direction of second, as is necessary in a lot of plays, knowing in advance that Barry would be on the job to complete his end of the play, Collins was always forced to make the play directly to the recruit fielder, often having to hesitate, momentarily, before even starting the play in order to permit the youngster to get over to the base. Time and again such slight delays would prevent a double play by a scant margin. And the failure to complete such a play often gave the opposition a chance to start a rally that ended disastrously for the "Athletics," when the double play, had it been accomplished, would have retired the side. And there can be no doubt that the enforced absence of Collins would have had a precisely similar effect on Barry.

Second base is called the "pivot position of the infield." This is because most of the plays center around second base. As reported, most of the double plays read: "short to second to first"; "third to second to first"; "second to short to first", "first to second to first," and so on down the line. The records show, too, that teams strong on double plays are usually teams well up in the race. Generally speaking, ability to make double plays speaks well for a team's defense. A good defense means few runs for the opposition, provided the pitching is of the proper kind.

Since second base is the pivot position, much of the team's success depends upon the way that post is played. If the short-stop and second baseman work smoothly, it usually has the effect of balancing the rest of the team. A club that is constantly mussing up plays around second base never causes much trouble for the opposition.

To make a study of the opposing batters is of great assistance to infielders in the proper playing of their positions. It would be the height of folly for an infield to assume exactly the same position for all batsmen. There is, for the sake of comparison, "Birdie" Cree, formerly of the New York Americans, and Johnny McInnis, of the Philadelphia "Athletics." These two players are right-handed batters, yet usually they hit in opposite directions. Cree was known as a right-field hitter, that is, the chances are that nine out of ten balls he hits will go to right field. Knowing this, the infield—and the outfield also—shifted when Cree came to the bat. The first baseman played close to the foul line, the second baseman moved considerably nearer first, the short-stop moved over toward second, and the third baseman toward short. All the outfielders shifted probably twenty or thirty feet toward right field.

It becomes the duty of the pitcher also, in such cases, to lend his aid to carry out the revised plans of the fielders. The pitcher then should be careful to keep the ball on the outside of the plate. Such a ball is almost certain to be hit into right. A ball on the inside of the plate might tend to upset all the previous plans of the infield and outfield. While Cree might not hit such a ball to left field, because he swings late, it is quite possible, nevertheless, that the mistake in pitching might enable him to hit the ball in such a direction that the shift made would throw the infield sufficiently out of balance to prevent any member of it from intercepting the ball.

McInnis is a natural hitter. Despite the fact that he is regarded as a left-field batsman, and pitchers and infielders and outfielders play for him accordingly, he manages to hit above the three hundred mark. McInnis hits the ball hard. Many of his hits down the third base-line are so fast that no fielder in the world could handle them. Almost before the third baseman is able to make a start the ball shoots past him with the speed of an express-train. When McInnis steps to the plate, the infield shifts directly opposite to its change when Cree was the batter. All players move a considerable distance toward the left-field side of the diamond. It becomes the duty of the pitcher, with McInnis up, to keep the ball on the inside of the plate, for, generally speaking, such a ball is almost certain to be hit to the left side

of the field. A ball pitched high and on the outside to McInnis, through mistake or lack of control on the part of the pitcher, would have a tendency to break up the plan of the defense against this player. The fact that he hits the ball so hard is of great aid to him in breaking down the



"STUFFY" MCINNIS, THE FAMOUS FIRST BASEMAN OF THE PHILADELPHIA "ATHLETICS."

schemes used by opposing fielders and pitchers to lessen his batting average. McInnis knows he is regarded as a left-field hitter, and despite the fact that he is regarded as one of the best hitters in the game, he is striving constantly to become able to hit in other directions. Last year, on several occasions, he surprised rival players by hitting safely to right field. Such happenings, however, were usually regarded as accidents, few of his opponents giving McInnis credit for constantly trying to hit the ball to some other field than the left side of the diamond.

The question now arises as to how the infield should play when players known as "free hitters" are at the bat,—players who are just as liable to hit to right field as to left. There is no greater student of baseball than Connie Mack. He figures out all possible plays from every angle. I

once asked him his opinion on this subject, for a batter like Lajoie, Cobb, or Wagner is liable to hit to any part of the field, and, quite often, regardless of the kind of ball that is pitched.

"It has been my experience," said Mr. Mack, "that more balls are hit to left field than right. And this makes me think that it is usually best for every infielder to incline toward the left side of the diamond. I like a first baseman to play pretty deep and fairly well over toward second. I favor the second baseman playing closer to second by a fair margin than first, and so on."

Who should cover second base on throws? That is a question that often puzzles the fan and the young player. As a rule, the short-stop or second baseman decides in advance of the pitch who is to cover on an attempted steal. If the batter happens to be a player more likely to hit to the right side of the diamond than the left, the short-stop usually covers the base. If the batter is a fellow more likely to hit to the left side of the diamond, then the second baseman usually covers it. The pitcher, of course, must work in harmony with this play. Often the catcher decides to call for a waste ball, which, if pitched far enough outside, is a ball that the batsman really *cannot* hit, and it gives the catcher a clean throw. It is usually delivered with the slightest possible motion, so that it may be speeded to the catcher in the least possible time.

When a runner reaches second base, the short-stop and second baseman can do much to slow him up, by constantly forcing him back to the bag. The moment a runner gets a pretty good lead, it is wise for either infielder to drive him back to second by running up to the bag to take a throw. The throw can come from either the catcher or pitcher. The catcher always has the play in front of him, and often, through some set signal, tells the pitcher when to whirl around and make the throw. The percentage of runners caught on such plays are very few, but often such a play gets the pitcher out of a bad hole, simply because the runner insists on taking too big a lead in his anxiety to score. Even if the runner is not caught, the play has another very good feature. Every time the runner is forced to return fifteen or twenty feet to a base, it robs him of a certain amount of his speed. If the play is so close that he is forced to slide, it slows up the runner still more. Often a couple of narrow escapes will cause him to cut down by four or five feet the big lead he was taking.

There is also another decided advantage to the team in the field on this play. If the pitcher, after having driven the runner back without being forced to throw, makes a quick delivery to

the batsman, the runner is thrown out of his stride. Driving the runner back naturally robs him of his chance to get a flying start. Often such a practice slows up the runner just enough to cause him, in trying to score from second on a single, to be thrown out at the plate, on a hit that ordinarily would have scored him with ease. Perhaps at times the second baseman and short-stop look foolish by making bluff after bluff. The practice often has its reward at the plate, though as a rule, credit is seldom given to the play around second, only a great throw by some fielder being taken into consideration. The one disadvantage of the play, for the team in the field, is when a wise batter happens to hit through a spot vacated by either the short-stop or second baseman, while driving the runner back.

Double plays are one of baseball's prettiest features, especially when executed by master fielders. It was a delight to watch Tinker, Evers, and Chance make these plays on drives which looked like sure base-hits. On all possible double plays around second base, the short-stop and second baseman must work together. Some one should always be covering the bag to take the throw. Almost at the crack of the bat, the star infielders have a play in mind, and at once either the short-stop or second baseman takes the bag to complete the attempt at a double play. It is very foolish to try and get two men when such a thing is practically impossible. In such cases, it is policy to play it safe and get one. That is often an easy matter, if it is played carefully; while, if a hurried throw is made to get two men, as often the ball is thrown wild, and both runners are safe.

Bobby Wallace, of the St. Louis "Browns," in his day was one of the greatest infielders who ever played baseball. Although now hovering around the forty-year mark, Wallace is a star compared to some of the recruits who come up to the big league as so-called "phenoms." Wallace has played second, third, and short, and of all three positions he considers third the easiest, but prefers playing short-stop, probably because it was the position at which he first became a star. In discussing the position with me one day last summer, Wallace remarked:

"Too few short-stops keep in mind the fact that one of the greatest assets such a player must have is a strong throwing arm. Most short-stops are constantly throwing the ball around with the greatest possible speed. They throw out a batter at first who is regarded as slow, with the same amount of speed as they retire a "speed merchant" who can make a hundred yards in about ten seconds. That is a big mistake,—an

error that has put not only many a short-stop but many other players out of the running long before their time. I have always been rated as an infielder with a good arm. I honestly believe my arm to-day is just about as good as it ever was, and I've been throwing runners out for many a year. If Cy Young hit a ball to me (and Cy was never a fast runner), I would probably throw him out by a step at first. I saved my arm as much as possible. When Cobb, a very fast man, would hit a ball to me, I usually got *him* by about a step. I made the throw to suit the man. That is the wise thing to do, yet few infielders follow such a system."

The work of the short-stop—in fact of every player—becomes more difficult when runners get on the bases. In many cases, the runners will make false starts just in order to get an idea who is to cover the base. If the short-stop makes the break to cover on the bluff, then the batsman decides that he should try to drive the ball through the space vacated by the short-stop. Often it is possible to thwart the batter in this aim by shifting on the next pitch and allowing the second baseman to cover, unless the batter happens to be a dead right-field hitter. Perhaps a better way to thwart the batter is for the infielders to start slowly, not making a break to the bag until the ball is well on its way to the plate.

When runners are on first and third base and a double steal seems the most probable play, the best policy is to have the short-stop cover second base for a throw, and have the second baseman cut in and take a short throw, provided the man on third makes a dash for the plate. On this play, there must be perfect unison between the short-stop and second baseman. The moment the play is started, the second baseman dashes in back of the pitcher, while the short-stop rushes over to second base. If the runner on third

dashes for the plate, the second baseman cuts off the throw and attempts to get the runner at the plate. If the second baseman is pretty sure the runner on third does not intend to go, he still tries to create the impression that he is going to take the throw, in the hope that it may possibly influence the man coming from first to slow up a trifle. Then, as the ball nears him, he ducks down and lets it go on through, and the short-stop handles the ball, often in time to get the runner at second. Even if the runner going to second is not retired, the original purpose of the steal, nine times out of ten, is frustrated, namely—the hope that the runner on third may score. The short-stop and second baseman always should know what style of ball is being pitched to the batsman, which is usually learned by knowing and watching the signals of the catcher.

Another great asset for the short-stop is to learn to throw underhand. Often he has to stop balls in such a position that to straighten up and throw would inevitably mean failure to catch a runner; and, in such cases, the ability to throw underhand is of great value to him.

The play of the first baseman and the third baseman is largely governed by conditions. When a bunt is the expected play, the third baseman must anticipate it and try, if possible, to force the runner who is being advanced. If this be an impossibility, the next best thing to do is to get the batsman. With a man on second and no one out, a sacrifice is usually the best play. The first baseman, in such a case, should always try to make a play to get the runner at third if possible. On such plays, if it is impossible to get the runner at third, then make a play at first. When the first baseman goes in on a bunt, it becomes the duty of either the pitcher or second baseman to cover first, usually the second baseman. A good infielder must think quickly and be able to execute the plays as fast as he figures them out.

A FARM THAT WAS WON IN A WALK

BY LEWIS EDWIN THEISS

EVERY one of us has heard of things "won in a walk." That is an expressive way of saying that a thing was accomplished easily. But few of us have ever heard of any tangible object that was ever actually won in a walk, excepting perhaps a wager. This is the story of a farm that was

actually won in a walk, or won *by* a walk, and won by a very hard walk at that.

The walker was John Burrows. He was never renowned as a walker, but he was famous as a soldier under George Washington, and later as a general in the Pennsylvania militia. John Bur-

rows began to fight when he was no older than some of you are. He was born near Rahway, New Jersey, fifteen years before the War of the Revolution began. At the start of that conflict, you will remember, Washington was hard pushed. His raw troops could not win a victory. He retreated. When he was on his way to Trenton, which he captured on Christmas night of 1776, Washington was a guest at the home of John Burrows' father near Newtown, Pennsylvania. Little John doubtless heard the great general tell the patriotic household his plan for attacking Trenton, for, when Washington moved on to Trenton, little John went with him.

Sometimes boys of his age are more bother than they are help. That was not true of John Burrows. He was a rugged lad, used to hard work, fearless, active, and a good shot with a rifle. He was as useful as any man; and in this attack Washington needed every soldier he could muster. He had not yet won a victory; and unless he won one soon, he could not keep the support of the people. So John was a welcome addition to Washington's force. He crossed the Delaware with the general, did his share in fighting the ice-packs, and was as much a soldier as any one else in the struggle that followed.

In fact, he was so much of a soldier that Washington at once took him into his own service as an express-rider. There was no more responsible position in all the army than this. Little John had to carry General Washington's despatches. Upon his ability to deliver those despatches to the other generals and officials often depended the success of the commander-in-chief. General Washington knew how important it was to have good express-riders, and you may be very sure he had good reason for choosing John Burrows for that office. John was cool and daring, and, being young and not heavy, was able to ride far and fast. For fourteen months he carried Washington's despatches, living with the great general when not carrying despatches for him, and being always at his elbow, where he could be useful. He was with Washington during that terrible winter at Valley Forge, and at the battle of Monmouth he had a horse shot under him. General Washington loved little John so much that he gave him a fine new horse as a token of his esteem.

After the war was over John Burrows apprenticed himself to a farrier and learned to be a blacksmith. But he did not stick to blacksmithing. Instead, with one of his brothers, he ran a mill. He married and had several children.

Then, in 1794, he moved to the frontier and took up some land near the site of the present

town of Muncy, Pennsylvania. Here he secured fifty acres. But it was not enough for his purpose. He needed more, and he found that the fifty-acre piece adjoining his own was still open to settlers. He wanted this fifty acres very much. So did a neighbor of his. The question was who would get it.

Getting land in those days was quite a different matter from getting land to-day. Now one goes to the owner, who usually lives near his land, and buys it. In those days all the new land was owned by the descendants of William Penn. They had a land office in Philadelphia. The only way to get land then was by filing an application for the land in this office, and making the necessary payments. But before application could be filed, the land had first to be surveyed. That took time and money. Burrows got his survey made, but could not find an opportunity to go to Philadelphia to file his claim.

Muncy is nearly 180 miles from Philadelphia. There were no railroads, no trolley-cars, no stages, and not even roads, as we understand the term. Most of the way there was only a narrow bridle-path, which led through a wilderness infested with Indians or thieves. So you see it was no easy matter to make the trip to Philadelphia.

But one Sunday noon John Burrows came home from a trip into the woods, and his wife told him that on Friday his rival had started for Philadelphia on horseback, after having his survey made. Burrows showed then the qualities that made General Washington choose him as an express-rider. Instead of bewailing the fact that his rival had "the jump on him," as we say, he at once decided to outdistance his rival, and to do it on foot. He believed he could walk faster than the other man could ride.

So after eating a hearty meal, he started for Philadelphia, carrying his rifle, some food, and his precious survey-papers. That afternoon he walked to the town that is now known as Sunbury. The distance was thirty miles. If any of us walked thirty miles in a day, we should think we had done a great thing. And probably we should be too stiff and sore to walk another foot. But just as soon as he could get his application signed on Monday morning—Sunbury was the county-seat where the witnessing officials lived—he started for Philadelphia. From Sunbury to Philadelphia it is 156 miles.

John Burrows knew that his rival was ahead of him. He had inquired of the scattered settlers as he went, and he knew that, unless he walked these one hundred and fifty-six miles faster than they had ever been walked before, he would lose.

He was a tall man with long legs, hardy, and accustomed to tremendous exertion. His muscles were tough as whip-cord. He could toil for hours without fatigue. Like all those early settlers, he was used to performing incredible feats. Yet in all his experience as a soldier, Indian fighter, blacksmith, miller, or farmer, John Bur-

rows never labored harder than he did on this walk. So Burrows was there before the doors opened. The minute the land office was ready for business Burrows hastened in, and at once presented his survey and filed his claim to the fifty acres. The clerk took his papers, entered the claim, gave him a receipt—and at that



"HIS LONG LEGS CARRIED HIM OVER THE GROUND AT A TREMENDOUS PACE."

rows never labored harder than he did on this walk. His long legs carried him over the ground at a tremendous pace. An ordinary man would have had to trot to keep up with him. Hour after hour he pushed on, stopping only to eat a bite when hungry, or perhaps even eating as he walked. Darkness came, but still he pushed on. Nothing could stop him. As he went along, he made inquiries about the man ahead of him. Gradually but surely, he found, he was overtaking him. And that spurred him on to a still faster gait. I do not know just how many hours John Burrows walked, but late on the second day after he left Sunbury he tramped into Philadelphia. He had covered 156 miles in two days—a walk of seventy-eight miles a day.

John Burrows went to bed that night with instructions to his host to call him very early in the morning. He was up with the lark. He knew that he was in time. Now came the pinch. The

moment in came the other man from Muncy. But Burrows was first and Burrows got the land.

You can imagine the mortification and the disappointment of the other man when he found he was beaten—particularly when he had been beaten by a man on foot. With a good start and a strong horse he had thought he would surely get the land. He did not know whether Burrows would come to Philadelphia or not, but he had no question as to who would get there first.

Burrows went back home with his deed to the fifty acres. Now he had one hundred acres. It made a fine farm for him. He raised cattle and sheep, and by hard labor acquired gradually more and more land, until in the end he became the owner of great tracts, a man of renown, an official in his commonwealth, and a general in its army. But much of his success he owed to the possession of the fifty acres gained by such labor—the farm he had won in a walk.



THE QUEBEC BRIDGE, REACHING OUT ACROSS THE ST. LAWRENCE RIVER—A THIRD OF A MILE FROM PIER TO PIER.

ON THE BATTLE-FRONT OF ENGINEERING

BY A. RUSSELL BOND

Managing Editor of "Scientific American," and author of "With Men Who Do Things"

CHAPTER XI

THE WORLD'S GREATEST BRIDGE

"WELL, boys, I think we shall have to make another excursion into Canada." Mr. Barto laid down the engineering magazine that he was reading and studied his companions with a whimsical smile.

It was clearly evident that Jack was far from delighted at the suggestion. Not that he bore any grudge against the country or its inhabitants. He had really enjoyed every minute of the month spent in watching the novel work of righting the tilted grain bins and building new foundations under them. Indeed he would not have missed that instructive experience for a good deal; but now he was impatient to get to the Big City and see some of the wonders that Perry had been telling him about. Perry did not seem anxious to prolong the tour, either, although he suspected from the odd look on Mr. Barto's face that he might have something very interesting up his sleeve.

"My, but you greet my proposal with enthusiasm!" said the engineer, with a laugh.

"I hope," said Perry, "this is n't a job that

will keep us waiting a whole month, like the grain elevator job."

"Oh, no," replied Mr. Barto. "This will be a pleasure trip; I want to take you to a great battle-field."

"A battle-field!" cried Perry. "What, in Canada?"

"Yes, an engineering battle-field. You know I have often likened the work of the engineer to that of a general. It is war, war, war, all the time, with ax and spade, with pick and shovel, with dynamite and powerful machinery; for we have to deal with the vast forces of Nature,—torrent and tempest, avalanche and ice-pack, granite and quicksand,—there is no end to the forces at Nature's disposal. As in real warfare, the attack must first be planned out on paper. Before the campaign is begun the lay of the land is plotted. Scouting parties are sent out to reconnoiter; the strength of the enemy and the dispositions of his forces are studied. Then the engineer summons his staff-officers, the plans are discussed, and each move is mapped out in detail before the actual contest begins.

"The place I want to visit is the scene of one

of the mightiest battles ever fought by an engineer, and I am sorry to say that the result was defeat and absolute rout. It was the Bull Run of engineering. The trouble was that the army was under-officered; a weakness developed in the lines; the danger was not realized by the officers in immediate charge; and by the time the commander-in-chief had been notified and had given orders to others in authority to relieve the situation, the threatened spot yielded. The battle was lost, seventy-five men were killed, and over a million dollars' worth of material was reduced to a pile of junk.

"That battle-field is interesting just now, not because of a failure nine years ago, but because the fight has been taken up anew. The battle is now on, and it looks as if it surely must end in victory."

Mr. Barto sat back and watched the effect of his little speech. Both boys were at him at once with demands for a more explicit account of the battle.

"Jack," he said, by way of answer, "you remember Eagle Bluff at Thunder River, don't you?"

Jack nodded. "Of course I do."

"I believe you and Perry did a bit of rough surveying to find out how far it was across the valley to Round Top. You made it about a third of a mile, did n't you?"

"Yes; seventeen hundred feet," answered Jack.

"Well, that is near enough," continued Mr. Barto. "Suppose you wanted to build a bridge across there; how would you go about it?"

"What?" gasped Jack. "I don't believe it could be done! The gulch is too deep for any piers, and you could hardly do that in a single span."

"Oh, yes, you could!" interrupted Perry; "you could build a suspension bridge across."

"Suppose," said Mr. Barto, "a suspension bridge would not do; suppose we needed something stiffer than that."

"Why," said Perry, "why, you would build a cantilever, would n't you?"

"But what is a cantilever?"

Perry looked blank.

"You know what a bracket is, don't you?" said Mr. Barto. "Well, a cantilever is merely a succession of brackets. Now I am going to describe the 'K' type of cantilever, because that has something to do with this battle we are talking about."

Mr. Barto took out his pencil and made a sketch similar to Figure 1. "This line A ," he said, "represents the rock face of Eagle Bluff. We set a pair of parallel bars, B " (the figure, being a side view, shows only one of the pair), "in niches in the rock and swing their upper ends out, keep-

ing them, however, from going too far by means of the ties, C . The B members have to be fairly stiff; otherwise, if a heavy load is suspended from the brackets, they will buckle or bend as indicated by the dotted lines. So we will draw B with a heavy line to show that it is what a bridge engineer would call a 'compression member.' The members C , however, are never under compression and do not have to be rigid; so we will draw them with a light line to show that they are 'tension members.' Now, if we can put out one bracket from our wall, why can we not rig up a second bracket on the first?"

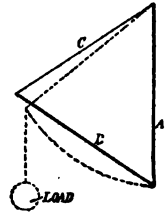


FIG. 1.

Mr. Barto amplified his sketch so that it looked like Figure 2.

"Let us hang a bracket $A' B' C'$ on the point of the first bracket $A B C$, tying back the upper end of the bracket by means of the member D . It will be evident that a load on this second bracket will exert a pull on the member D , and so this member may be put down with a light line to show that it is under tension. But if a heavy load were put on the second bracket, it would break its back on the point of the first bracket (see dotted line, Figure 2): that is, the lower

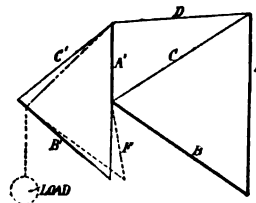


FIG. 2.

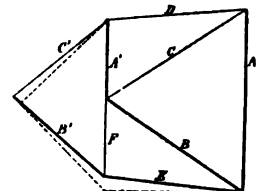


FIG. 3.

half, F , of the member A' , would be bent back unless we put in a brace, E (Figure 3), to hold it in place. The part F may then be indicated by a light line, because there is no compressive strain on it. It serves to hold up the members E and B' —to keep them from dropping to the position shown by the dotted lines (Figure 3). This done, we can proceed to build a third bracket on the second one.

You see that each bracket forms a sort of 'K,' and this is what gives the name to this type of cantilever construction."

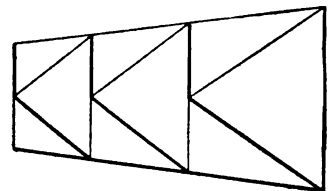


FIG. 4.

"But you can't go on putting on new brackets forever, can you?" asked Perry.



"TALL SHIPS MAY SAIL UNDER THOSE OUTSTRETCHED ARMS."

"Of course not. The longer the cantilever arm grows, the greater the pull on the upper part of the wall and the greater the thrust on the lower part of it. As long as this cantilever is being built out from the face of a rock wall there is no danger of crushing in the abutment, but the top of the bridge would have to be anchored very firmly or it would tear loose under the powerful leverage of a long cantilever arm. Now, usually, a cantilever is built with two arms, running in opposite directions from a center post, so that the pull of one arm will counterbalance the pull of the other."

Mr. Barto spread out the magazine he had been reading. "Here," he said, pointing to one of the illustrations, "is the finest example of a cantilever bridge the world has ever seen, because it has a span of record length. The distance between those two piers is eighteen hundred feet. They stand fully a third of a mile apart, and yet their arms reach across that enormous expanse, without any intermediate support, and join hands at the center of the river, one hundred and fifty feet clear above high water. Tall ships may sail under those outstretched arms without having to lower their topmasts. The anchor arms—that is, the arms that extend shoreward—are not so long as the cantilever arms, but the bridge has a length of three thousand two hundred and thirty-nine feet over all. Suppose we set this bridge in Broadway—you won't appreciate this, Jack,—but suppose, Perry, we started it at Twenty-third Street. It would reach all the way to Thirty-fifth Street, and beyond. The floor of the bridge would run at the level of the top-story windows of the buildings along the way, while the towers themselves would be higher than the Flatiron Building."

"Where are the 'K's' you were telling us about?" asked Perry.

"Can't you see all the 'K's' facing the main posts? Those on the left-hand side are right side around, while the K's on the right-hand side are reversed."

"But what is the matter with the up-slanting arms of the 'K's'?" said Perry. "They seem to extend way past the upright posts."

"Oh, I see what is bothering you!" Mr. Barto took the sketch of the cantilever he had been making and drew in the lines GH and J , so that the sketch had the appearance of Figure 5.

"Now G is the floor of the bridge," said Mr. Barto, "and it is supported on cross-girders attached to the lower halves of the A members. As the span between the brackets, or panels, as they are called, is considerable, an extra support is provided by putting in the short posts, H . Then, to keep the diagonal compression members B from giving, under the extra weight, as indicated by the dotted lines, the tension members C are extended by adding the parts J to them."

"But what has all this to do with the great engineering defeat you were telling us about?" interrupted Perry.

"I was just coming to that," said Mr. Barto. "Eleven years ago they started building a similar bridge across the St. Lawrence River; it was an even more daring structure than this one. Work was first started on the southern half of the bridge; and when that was done, they planned to build out from the north shore so that the two cantilever arms would meet over the middle of the river. The southern cantilever had been built nearly to its full length when, one afternoon, one of the main compression members doubled up, and, with a mighty crash, down went the whole structure into the river!"

"Had n't that member been calculated properly?" asked Jack.

Mr. Barto did not answer the question directly. "The compression members," he said, "have to be very much heavier than the tension members, even when the load they bear is the same, because they must be rigid. A compression member is very strong as long as it bears its load end on. You could stand on the point of a knitting needle without crushing it if you only had something to keep the needle from bending; but if the needle were deflected from a straight line ever

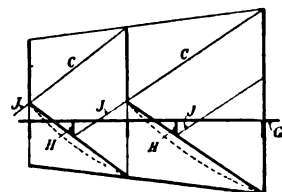


FIG. 5.

so slightly, it would collapse at once. It is just so with a bridge chord. As long as the compression members remain rigid, they can carry their load easily. But once they start to bend they weaken rapidly. No bridge has ever been undertaken with as great a span as that across the St. Lawrence, and, although the load that the various members would have to carry had been carefully estimated, not enough bracing was provided in the members themselves to keep the main compression chords rigid under the enormous strain they were to be subjected to. One of the main girders started to bend. When it was noticed, it was only a couple of inches out of the straight line. Then it had to bear against a bending strain, as well as the end thrust of the bridge. It stood the strain for a couple of days, but the combination was too much for it. Suddenly it gave way and twisted up into the form of an S. Down tumbled the whole structure immediately."

"What happened to it all?" inquired Jack. "Did they fish out the steel girders and use them over again?"

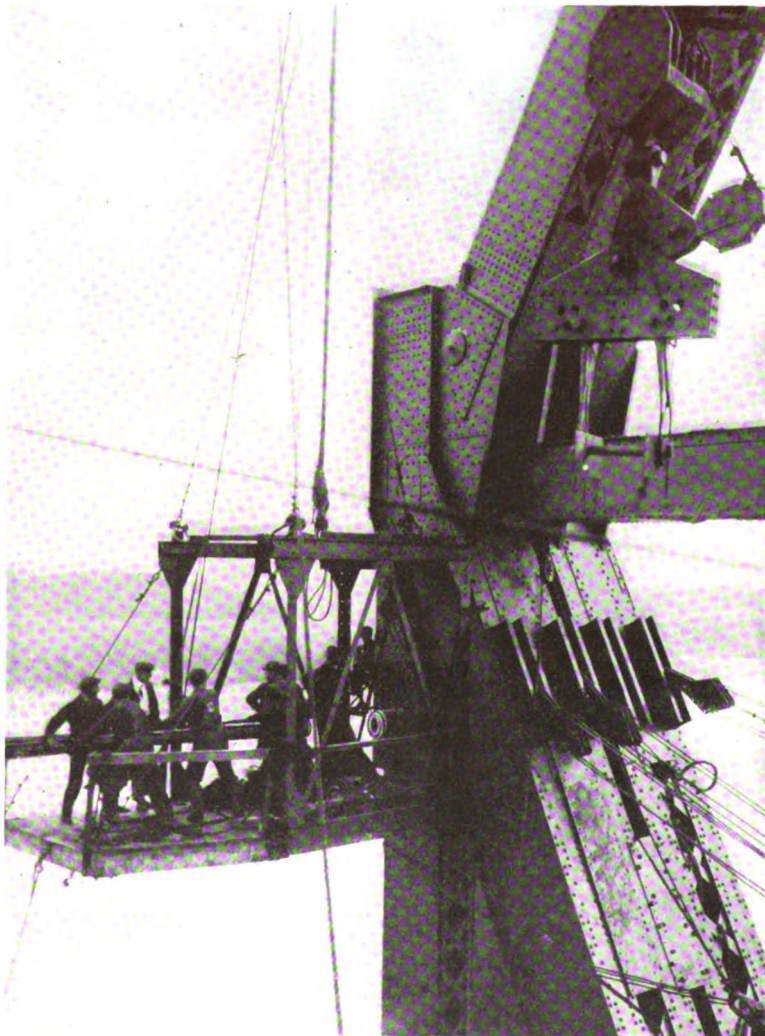
"No, indeed," answered Mr. Barto. "Most of it is there at the bottom of the river. You know the St. Lawrence is very deep—two hundred feet at that point. It was hard enough to clear away the stuff on shore. It was such a tangled mass of enormous steel members that the only way to dispose of it was to cut it up into short lengths with the oxyacetylene torch. But all the material beyond low-tide level had to be left there on the battle-field, lying just where it fell.

"Well, boys, the question is still before you. Would you like to go to Quebec and witness the building of the greatest cantilever bridge in the world?"

There was no question in the minds of the boys this time. Unanimously they voted "Yea!"

When we hear of some great work of man or of nature, our fancy is apt to paint such a won-

derful picture of it that the object itself proves disappointing. But there are a few things that surpass the wildest dreams of the imagination. The Quebec bridge belongs in this class. The magazine picture that Mr. Barto had shown the boys conveyed no idea of the stupendous dimensions of the bridge. It looked very slender and



"WORKMEN DRIVING AN ENORMOUS PIN INTO A JOINT." (SEE PAGE 831.)

graceful as it was silhouetted against the sky. Now that they had a chance to see the bridge itself, they found that their conception of its size had been sadly deficient. For instance, the great bottom compression chords, which Jack had supposed to be three or four feet deep at most, measured over seven feet, and men actually had to use ladders to climb up on them. The main piers of the bridge, which were so insignificant



ONE OF THE MAIN SHOES, SHOWING THE HEAVY COMPRESSION MEMBERS SECURED TO IT.

in the picture that they could hardly be discerned, stood $33\frac{1}{2}$ feet above high-water level, or, as Mr. Barto put it, "as high as an ordinary two-story-and-attic cottage." The piers were of granite blocks, and in each pier a hundred and seventy-six holes had to be drilled for the anchor-bolts of the main shoes of the cantilever. Of course, all that work had been completed long before, but the visitors were told that if all the holes in one of the piers were added together their diameters would reach a sixth of a mile.

It was a noisy place. There was the rumble of cars bringing up new masses of metal, the clanging of steel against steel as giant pins were hammered into place, and the incessant racket of the riveters.

A Mr. Genung was explaining the work to Mr. Barto. Perry caught but a snatch of the conversation.

"The first thing we did was to build the floor," Mr. Genung was saying.

"How is that, sir?" Perry interrupted. "Have n't you got that twisted?"

"No; not at all. The floor was built first from

the anchor pier to the main pier. After that we built the rest of the anchor arm about the floor."

"But I don't understand," said Perry. "I thought the whole idea of this network of steel was to carry the floor. If you could put up the floor without it, what was the use of putting in the rest of the steel work *after* you had finished the floor?"

Mr. Genung and Mr. Barto both laughed.

"I knew you were joking!" cried Perry.

"No, I 'm not," protested Mr. Genung. "We really did build the floor first. The floor was supported on temporary staging resting on the ground. When the floor was finished as far as the main pier, that big traveling erector was set up; with it the anchor shoes were set in place on the main pier, and then we worked back toward shore, building the bottom chords. These had to be supported on temporary staging, too. This done, we worked from shore toward the main pier, putting in the rest of the members."

The "traveler" Mr. Genung was speaking about was in itself an impressive piece of work—a skeleton tower of steel weighing a thousand tons. It

was built to handle the enormously heavy bridge members, some of which weighed a hundred tons. It ran on its own tracks on the main floor of the bridge and it spanned the tracks, along the middle of the bridge floor, on which materials were brought forward, between the legs of the traveler, and picked up by the derricks or cranes.

"How tall is it?" asked Jack, gazing up at the towering structure.

"Two hundred feet," was the answer; "as high as a fifteen-story building. And up on top of that tall tower are two traveling-cranes that can reach out about fifty feet beyond the face of the tower. It is no simple matter moving a fifteen-story building around."

"Does it really travel?" asked Perry.

"Surely, but not at very high speed, I must admit. We make about ten feet per minute when traveling on the 'high gear.'"

While the boys looked on, the cranes picked up two enormously heavy sections and hauled them up to position.

"I see now why they have two cranes on the traveler," said Perry.

"Why?" asked Jack.

"So as to balance the load, of course. It would be an awful lopsided strain on the tower to lift just one heavy piece at a time. Is n't that so, Mr. Genung?"

"There is no danger of upsetting the tower," answered Mr. Genung, "but it does relieve the strain to have the loads counterbalance each other. However, the main reason for doubling up is to save time; for time is money. This bridge is going to cost nine millions of dollars, and the interest on that amount of money, even for one hour, amounts to about fifty dollars. How would you like to go to the top of the traveler?"

"Fine!" chorused the two boys.

"You are n't afraid of getting dizzy, are you?"

"Oh, no," said Jack, "not we!"

"Here, Murphy," called Mr. Genung, "take these boys up and show them the view."

Mr. Barto and Mr. Genung stayed below on the operating platform of the traveler while the boys, in charge of Murphy, entered an elevator and shot skyward. A few moments later they stepped out upon a platform from which a flight of steps led up to the top of the tower. Just



"THEY COULD SEE THE OTHER CANTILEVER REACHING OUT TOWARD THEM."

above their heads the two traveling-cranes rumbled by, swinging massive steel members from their long cables.

From their point of vantage the boys watched the workmen who were driving an enormous pin into a joint. The men stood on a platform that was suspended from the traveler. There were eight or ten of them, and they were using a piece of steel shafting about ten inches in diameter and eight or ten feet long as a battering-ram to drive the pin home. Of course, the shaft or

battering-ram was too heavy for the men to lift, and so it was swung on a long cable from the top of the traveler. The boys had a bird's-eye view of the operation. They could see the cross-bars that had been passed through holes in the shaft to serve as handles. The men seized these cross-bars and then with a "Heave, ho!" they swung the heavy battering-ram against the pin. It was a tight fit, for it took many blows to drive the pin into the hole.

Looking across the river, Jack and Perry could see the other cantilever reaching out toward them.

"They must have worked over there faster than you," remarked Perry. "They have got way past the main posts."

"Yes," agreed their guide, "they had a much earlier start. They've got as far as they can go. Now they have to wait for us."

"You don't mean to say they are half-way across the river?" exclaimed Perry.

"No, but they ain't goin' to build any farther. Ye know we ain't goin' to build all the way across the river from the shores. We had enough of that when the first bridge was built. We ain't goin' to take no such risks this time."

Perry looked bewildered. "What are you going to do, then?"

"We are buildin' the center span of the bridge on stagin' along the shore. When it is done, we are goin' to float half a dozen barges under it at low tide and then let the tide lift the truss off the stagin' on to the barges. After that, we'll float the span to the middle of the river and lift it up into place between the two cantilever arms; and believe me, that's goin' to be one of the toughest jobs of the whole work! Ye see that span'll have to be raised a hundred and fifty feet straight up in the air. They figure they can do it in about twenty-four hours. But with the heavy tides we have on this river it will be a ticklish job, all right!"

"I don't see," put in Jack, "why it is any safer to put up the span that way than to build it out all the way from shore; won't the cantilever arms have to carry the same load in each case?"

"Oh, no," said Murphy. "You fellers could pick up a pretty heavy log between you, but if that log was sawed in two, neither one of ye could hold up your half of it; the sawed ends would be sure to drop to the ground. It's the same with that center span; the cantilevers can pick it up and carry the weight between them, but if either one had to carry half of the span without the other end bein' held up, the leverage of that half would put a heavy strain on the cantilever. That

center span is bein' built of nickel steel so that it will weigh as little as possible. Ye see, we don't want to run any chances like those on the first bridge when they tried to build all the way across from the two shores.

"Come on up here," exclaimed Murphy, leading the way to one of the cranes. "There is Big Bill. He was on the old bridge when she went down. Maybe he will tell you about it."

"Was he, really?" cried the boys.

"Hello, Murphy," called Big Bill, as the party approached. "Is this visitors' day?"

"Right ye are! These two boys want you to tell them about the accident."

Bill sobered down immediately. "It ain't a subject I like to talk about very much," he said, "particularly when I am up here on the top of this traveler. Ye have heard about what caused it," he went on; "and to think there might have been no lives lost if only the girder could have held out a few minutes longer! One of the inspectors noticed the bend in the chord two days before it gave way, but they told us it was nothing. I tell you, though, everybody was nervous about it on the bridge that day. They knew this beam was doing its best to bear up under the load. I was running a locomotive on the bridge at the time, and I said before starting out on that last run that any trip might see my finish. It was late in the afternoon. In another fifteen minutes the whistle would have blowed to quit work. All of a sudden there was a wrenching, grinding noise, and the bridge gave a lurch forward. I knew something was the matter and put on the brakes at once. I can see the bridge going down now. It went deliberate-like, and even though the brakes was on, my engine coasted down the bridge and fell off the end. Ye can see for yourselves that it's a big drop from the bridge floor to the water. I don't know what happened. Somehow or other I got free from the engine, and they picked me up more dead than alive. My partner—Dave Carter—was saved, too. He was on the bridge, but near the end of the anchor arm. When he felt the bridge go, he started running for his life. Fifty yards he ran, and uphill because the bridge was dragging down. He just jumped for the anchor pier when the whole thing went down with a crash. It was a narrow escape, all right, and we don't either of us want another like it."

"I don't see how you have the nerve to work on this bridge after your experience on the other," said Perry.

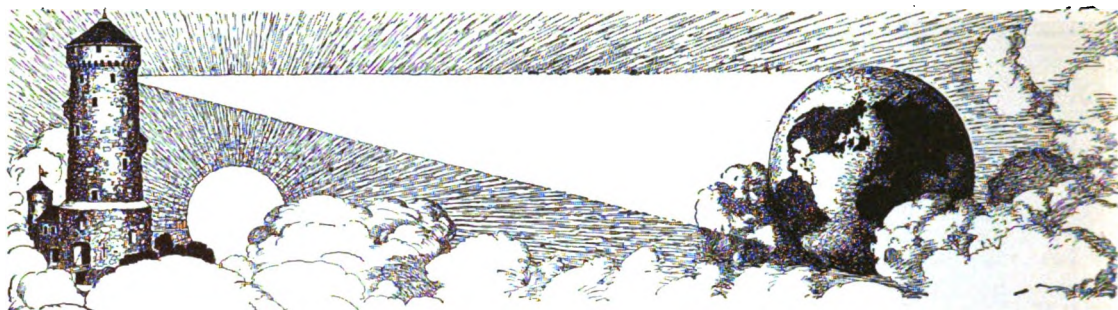
"Lightning never strikes twice in the same place," was Big Bill's laconic reply.

(To be continued)



Photograph by George H. Kahn.

ALONG THE DOCKS AT QUEBEC.



THE WATCH TOWER

BY S. E. FORMAN

Author of "Advanced Civics," "A History of the United States," etc.

OUR NEW ARMY

IN the last number of *THE WATCH TOWER* we left the Hay-Chamberlain Army Bill in conference, that is, in the hands of a small committee of reference consisting of members of both the House and the Senate. After about three weeks of discussion and consideration the conferees came to an agreement and reported the result of their conferences to their respective bodies. The report of the conferees was promptly ratified by both branches of Congress, and the bill was sent to the President for his signature. On the third of June it was signed and became a law.

The new regular army will consist of not less than 160,000 nor more than 175,000 regulars in time of peace. Since 1901 the regular army has consisted of not less than 57,000 nor more than 100,000 soldiers. Broadly speaking, the new army will about double the one that we have had. It will more than double it if the President so desires, for the new law provides that the Executive can bring the regular force up to 250,000 at any time he may find that conditions require it. In addition to the regular army the new law provides for raising the National Guard, now consisting of about 130,000 men, to 425,000 men. It also provides for about 31,000 non-combatants, who are not counted as part of the regular force. So the new military establishment at its lowest strength in times of peace will be as follows:

Regular Army (officers and men)	160,000
National Guard (officers and men)	425,000
Non-combatants	31,000
Total	<u>616,000</u>

The non-combatants are paymasters, surgeons, and others outside the regular line of fighting.

This is the new army which the country is to

have in times of peace. The cost of maintaining it will be about \$150,000,000 a year, an increase of about \$50,000,000 above the present cost of maintenance. But several years must pass before the organization can be completed, for the law provides that only about 12,000 regulars shall be recruited each year. It will require, therefore, at least five years to raise the regular army to its lowest peace strength. Several years also will be required for the full development of the National Guard.

The passing of this new Army Bill means practically that Uncle Sam, within the next few years, will want about 100,000 stalwart and healthy young men to come forward of their own free will and offer their services as soldiers. This is much more than he has ever asked before in times of peace. Where are all these young men to come from? Will the sons of the rich in large numbers answer to the call? Will poorer young men by the tens of thousands give up their chances of earning a good livelihood in the field of labor or of business and join the army for the low pay—about \$18.00 a month—which is given to soldiers? Only time and experience can answer these questions.

THE MEXICAN SITUATION

At the beginning of June the situation in Mexico was quieter than it had been for several months. Our troops in considerable numbers were still encamped on Mexican soil, but the relations between the Carranza forces and the Americans seemed, outwardly at least, to be friendly and in the main satisfactory. Many of the lawless bands had been scattered and their leaders punished. It was to do this that our soldiers were sent into Mexico. Since this had been accomplished as far as it was practicable to do it, it

seemed likely that President Wilson would gradually withdraw the troops and renew his policy of "watchful waiting."

Notwithstanding this outward calm, however, the Mexican situation was still critical and full of danger, as it must continue to be until the unhappy country shall have a government strong enough to keep peace within its borders. This it cannot have for some time to come. A people who have been living in a state of anarchy for

OUR NEW NAVY

As soon as the Army Bill was passed, the House took up the consideration of the Navy Bill. In the last week of May the House Committee on Naval Affairs reported a bill for placing our navy in a better state of preparedness. The bill called for an appropriation of \$241,000,000—a greater sum than has ever been expended by a nation for such a purpose in times of peace in



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A FRIENDLY MEETING OF UNITED STATES TROOPS AND CARRANZA SOLDIERS.

nearly five years cannot easily and quickly settle down to a quiet and peaceful life. So it is almost certain that from time to time there will be outbreaks that will try the patience of the American people.

But it may well be that these disturbances will not be so serious as to call for an intervention that will result in war. Many of our citizens, however, have little hope for a peaceful outcome of the Mexican difficulty. They believe that we are daily drifting toward intervention. But it cannot yet be said that the majority of Americans really wish this. Former President Taft doubtless voiced the sentiment of the country when, speaking at Washington and Jefferson College on Memorial Day, he said: "I do not want to intervene. I know too much of the cost."

the history of the world. The committee provided for no new dreadnoughts, because in its opinion we have at present enough ships of this kind. But it did not underrate the value of this type of vessel. In fact, it said they are the backbone of any proper naval defense. "The dreadnought fleet of Great Britain," said the committee, "by their mere existence and their readiness to act have kept the enemy in port." The committee, however, reported in favor of more cruisers, recommending the building of five battle-cruisers at a cost of \$20,000,000 each, and four scout-cruisers at \$5,500,000 each. A lesson to be learned from this war, said the committee, seems to be that the only method of defense against the battle-cruiser seems to be the battle-cruiser. Their tremendous cost is due to the fact

that they must have great speed, and speed is always expensive. The dreadnought has grown more and more costly, chiefly because of its increasing size and fighting power. In the building of cruisers the competition will be in speed; and, as this increases, the cost will doubtless increase in proportion. One wonders where it will end.

When the building program of the committee came before the House for its approval, the number of submarines was, by a majority vote, increased from twenty to fifty.

Scarcely had this addition to the Navy Bill been made when the great North Sea engagement between the British and German fleets (May 31-June 1) occurred, and the lessons taught by that tremendous conflict will undoubtedly have an important influence on the deliberation of the Senate committee when that body takes up the consideration of the Navy Bill, as it plans to do very soon. Even before this momentous sea-fight took place, the Senate committee believed that we should add two superdreadnoughts to our navy, and further strengthen it by submarines and airships. So it may be that the large appropriation called for by the House committee will be still further increased by the time the Navy Bill has passed both Houses.

A LEAGUE TO ENFORCE PEACE

IN the last week of May the League to Enforce Peace held its first annual meeting in the city of Washington. This association has a membership of more than two thousand persons. Among its members are many distinguished statesmen, educators, preachers, and leaders in almost every walk of life.

This new peace society has no plans for ending the present war in Europe, but when that struggle is over it will invite the great nations of the world to come together and agree upon a plan which it is believed will prevent a nation, even the most powerful, from rushing headlong into war. The plan is this: all the great nations of the world are to join in a Peace League and are to agree that, when a dispute arises between two countries, the question in dispute, if it cannot be settled in the ordinary manner, shall be submitted to a court, or to a "Council of Conciliation," and that neither nation shall begin war upon the other until the court, or council, renders its decision. After the decision is rendered the nation against which the case is decided may go to war if it wills to do so, for it will not be compelled to abide by the judgment of the court. If war between two nations of the Peace League is begun *before* the question in dispute is submitted to a tribunal,

then all the other member nations are to join together and use their military and financial forces against the nation that strikes the first blow. The League, therefore, does not hope to prevent war entirely, but it does hope to prevent the sudden outbreak of war.

IS PEACE IN SIGHT?

IN May there was more talk of peace than there had been at any other time since the Great War began. The peace rumors had their origin in Germany. In the German note to our Government on the submarine question Germany told America that she was ready to make peace on terms that would safeguard her vital interests, and President Wilson was invited to express his views as to how the war might be brought to an end. This willingness for peace on the part of Germany was not shared by the Allies. The president of France declared that his country wanted Germany to do much more than merely say she was willing for peace; it wanted her to ask for peace. "We do not want," said President Poincaré, "to submit to their conditions; we want to impose ours on them." The utterances of English statesmen also showed that Great Britain was in no mood for peace merely for peace' sake. Nothing, they said, but the complete submission of Germany would satisfy the British nation. With France and Great Britain demanding a peace such as could be demanded only by victors, it seemed that the war would have to go on. For thus far there were no victors; there was only a deadlock. Still, rumors of peace continued to fill the air. Even President Wilson in a formal speech stated what our Government would be likely to want in the event it was called upon to act as peacemaker.

SEE AMERICA FIRST

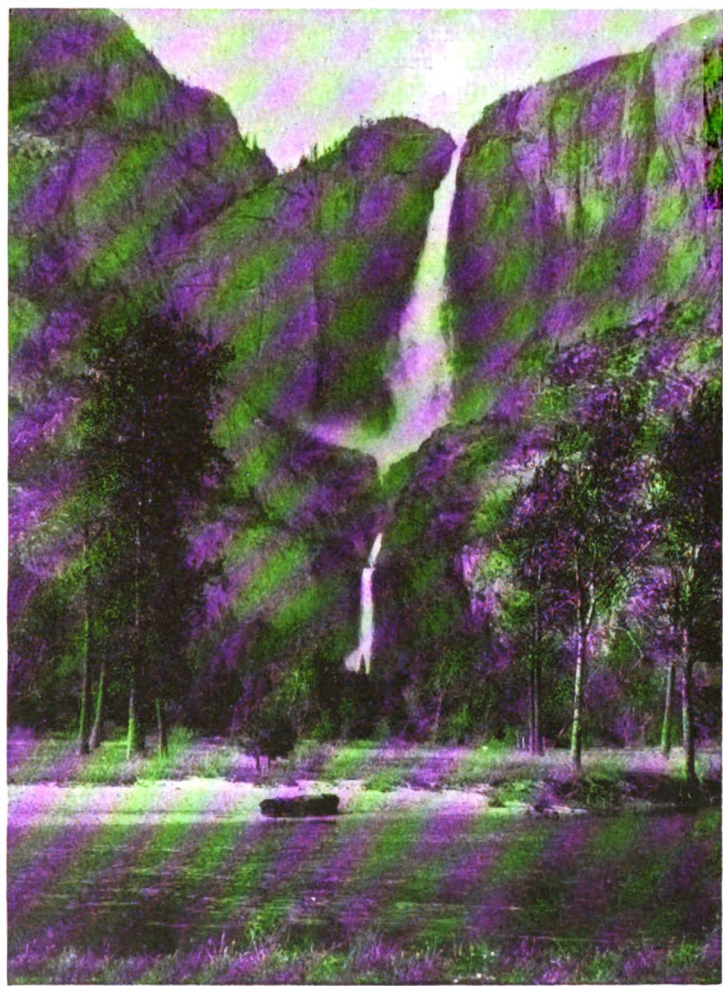
FOR many years past American sight-seers by hundreds of thousands crossed the Atlantic every summer and spent their vacations and their money in seeing the wonders of Europe. But the Great War has checked the tide of European travel, and Americans must be content for a while to travel in their own country and see the wonders that are to be found within its wide boundaries. They will not be disappointed, for America has an abundance of rare treats for the sight-seer.

Foremost among the attractions which America has for the tourist is our system of national parks. These parks are not beautiful tracts of cultivated land with smooth lawns and winding paths like Central Park in New York or Lincoln Park in Chicago. They are wild, uncultivated

areas which have been made beautiful not by the hand of man, but by the hand of nature. Fourteen of these national parks have been created—set aside for the use and enjoyment of the American people. The largest eight are Mount Rainier National Park in Washington, Crater Lake National Park in Oregon, Yosemite and Sequoia National Parks in California, Glacier National Park in Montana, Yellowstone Park in Wyoming, and Rocky Mountain and Mesa Verde National Parks in Colorado. These parks are to remain public property for all time, and they are to be kept in the natural condition in which man found them. No trees are to be cut down for timber, no land is to be tilled for profit, no animals, except those which prey upon the deer and young elk, are to be killed. These pleasure-grounds are vast in size. If they were all put together they would cover an area nearly as large as the State of New Jersey. The Yellowstone National Park alone contains 3300 square miles, and is almost as big as Delaware and Rhode Island combined. In this park no rifle has been fired at a wild animal since 1872, except by the official destroyers of predatory beasts. As a result, the animals of the park have become tame and harmless and have learned to look upon human beings as their friends. Sometimes a bear will come up to a man and eat sugar from his hand. Even the big grizzlies are harmless if not attacked. Each of the parks has its own peculiar wonders and beauties. The Yellowstone has its geysers, or water volcanoes; the Yosemite has its waterfalls, one of which has a total height equal to nine Niagara Falls piled one on top of the other; Glacier National Park is a land of Alpine beauty, a land of peaks and precipices, of ice-fields, of lovely lakes; Sequoia Park has the grandest trees in the world.

This year our Government is doing much to direct attention to the wonders of the Far West. Through the Department of the Interior, which has control of the national parks, it is issuing

circulars and bulletins to tourists who wish to "see America first." Any person wishing information about the national parks, about traveling and living in them and the expense of a visit, should write to the Secretary of the Interior at Washington for the "General Information Bulletin" of the particular national park in which he is interested. It will be sent free.



Photograph by the Pillsbury Picture Co.

THE YOSEMITE FALL.

Congress is also taking unusual interest in the national parks. There has been brought into the House a bill which provides for a National Park Service whose duty it shall be to develop cheap and comfortable transportation and hotel facilities, so that the parks may be made more accessible to the public. The bill ought to pass and the service ought to be established, for few people

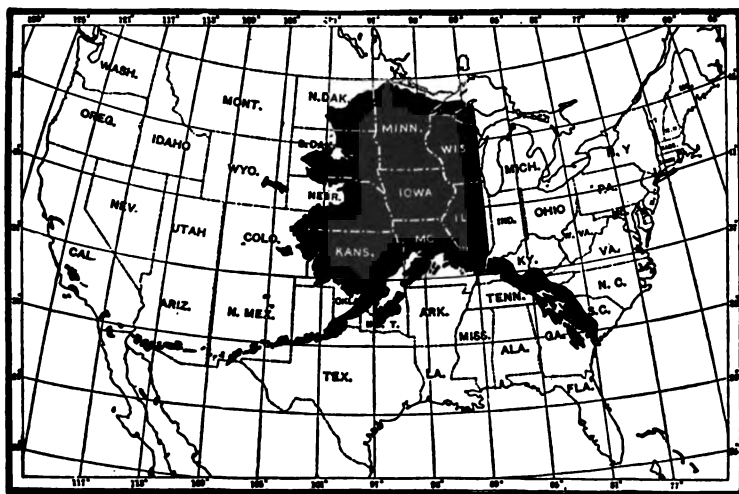
will be able to "see America first" unless the national parks are provided with moderate-priced hotels and other accommodations needed by sight-seers.

FARMING IN ALASKA

WHEN the United States, about fifty years ago, paid to Russia \$7,200,000 for the possession of Alaska, it was thought by many that we had purchased only a vast iceberg and had made a bad bargain. But we have found that quite the contrary is the case. The furs and fish and minerals which we have received from Alaska have already paid the purchase price nearly a hundred times over, while the natural resources of the

opinion of an officer of the Department of Agriculture, this area should be capable of supporting a population nearly equal to that supported by the farm products of those States. Almost all kinds of crops can be grown in Alaska. Corn, however, cannot be raised at all, and it is not a good country for wheat. Barley, oats, rye, potatoes, cabbages, turnips, tomatoes, and almost all of the common garden vegetables have been grown successfully. Potatoes of the best quality can be raised, and the yield of this vegetable is sometimes as high as several hundred bushels an acre. Wild fruits are abundant, and nearly every kind of cultivated berry can be grown with profit.

The Government at Washington is encouraging the development of these agricultural resources. Through the valley of the Matanuska River it is building a railroad at a cost of \$35,000,000. When this road is completed, the farmers of the valley will have an outlet for their products and will be able to sell them in the markets of the world. Uncle Sam is also selling land to settlers at a reasonable rate. For four hundred dollars a homesteader can secure a farm of 320 acres. Pioneers in considerable numbers are taking advantage of this opportunity to become independent landowners. Settlers are pushing out into the wilderness of Alaska just as a hundred years ago they were



THE AREA OF ALASKA AS COMPARED WITH THE UNITED STATES.

great peninsula are worth the price a thousand times over. Every year the gold mines of Alaska yield an output of more than \$15,000,000, and the value of the fisheries is nearly \$20,000,000. The coal lands have hardly been scratched, but it is known that they have a value so great that it cannot easily be calculated.

For a long time it was thought that Alaska was valuable only for its furs and mines and fisheries. But recently our Government has been making experiments through the Department of Agriculture, and we find that Alaska is a good place for the farmer as well as for the fisherman and the miner. Surveys have been made, and it is estimated that in the whole Territory there are about 100,000 square miles which can be made valuable for tilling and grazing. The farming area of Alaska, therefore, is as large as the combined area of the States of Pennsylvania, Maryland, Delaware, New Jersey, Connecticut, Massachusetts, Vermont, and New Hampshire; and, in the

pushing out into the wilderness beyond the Mississippi. Log-cabins are springing up in the center of clearings, and settlers are hard at work hewing down trees and planting and building. If this work of settlement shall continue, Alaska will soon be a populous country and will be asking for admission into the Union. And, if it is admitted, what an enormous State it will be! Texas in comparison will be small, for the area of Alaska is nearly 600,000 square miles.

THE SCHOOL AND THE NEIGHBORHOOD

FOR several years, social workers have been making earnest efforts to have school-houses used as centers of neighborhood development. When the school is used as a community center, the neighbors—grown people as well as children—meet at the school-house outside of school hours and discuss public affairs, vote upon questions of inter-

est to the neighborhood, hear lectures, view beautiful pictures, listen to good music, dance, play, sing, and engage in other activities. The movement for making the school-house a neighborhood center has only fairly begun, yet it has already gained considerable strength. In nearly fifty of our largest cities school-houses are used

alley. In April there was held in the city of New York a National Conference on Community Centers, and the proceedings of this body showed plainly that the idea of converting the school into a neighborhood center is wide-spread. The conference was attended by a hundred delegates coming from all parts of the country, and among the delegates were some of the leading men of the land.

What is the main purpose of this movement? Why are the school-houses being put to these new uses? The underlying purpose is to bring the residents of a community close together and make them better neighbors. There can be no doubt that this is a noble and worthy aim, for, in modern life, people are not as good neighbors as they ought to be. Especially is this true in the large cities, where the neighborly spirit is almost entirely lacking and many a person passes his life in the midst of strangers, not

knowing even the names of those who live next door. This is bad for the individual, bad for the community, and bad for the entire city. So if the wider use of the school building is going to



A SCHOOL NEIGHBORHOOD GATHERING.

in this way, and in some of the States the "little red school-house" out in the country is being used as a neighborhood house. In the city of New York fourteen public schools—and a public school in New York is so large that it is a small city in itself—have been made community centers. One of these centers conducts public dances, a roller-skating-rink, an employment bureau, social clubs of various kinds, gymnastic and boxing clubs, and amateur theatricals. Outside of New York the movement is securing a strong foothold in Boston, Louisville, Milwaukee, Los Angeles, and in the rural schools of the Middle West. In a few cities new school-houses are being constructed according to plans that will especially fit them for use as centers of recreation and social improvement. For example, in Wallace, Idaho, there is being built a high school which, besides providing for the needs of teaching, will have a large auditorium, a gymnasium, a swimming-pool, and a bowling-



ONE OF THE MOTHERS' AND HOME-MAKERS' CLUBS.

bring the people of a community together and make them real neighbors, then by all means let the doors of every school-house in the country be thrown open to the public.

A SUMMER LIFE-SAVING CLUB

BY MARY GRAHAM BONNER

(SEE PAGE 86a)

No one wishes to drown. No one wishes to be drowned through the struggles of a drowning person, and yet no one wishes to stand by and see any one drown when one can swim and should be able to save a life! Yet all these things are very likely to happen. And it is gratifying to know that we can easily learn about life-saving if we wish.

Not only can the proficient swimmer learn how to release himself from the struggling person in the water whose sole thought of self-preservation might quickly result in loss of life for both rescuer and struggler, but he can bring back to life the unconscious man whose stay under the water has brought him to the brink of eternity. Many a fine swimmer knows nothing about resuscitation, or the methods of release from the grasp of a struggling subject, or the simplest methods of carrying either a drowning or exhausted person. In a life-saving club all this may be learned; and—what is more comforting still—a very ordinary swimmer can learn how to restore life to a person who has stopped breathing.

This summer at Cooperstown, New York, situated on Otsego Lake, such a club will enter on its second season. The club was founded by Mr. Arthur R. Knott, of the class of 1917 of Princeton University. Mr. Knott is a member of the Princeton Life-saving and Swimming Club, and has a high standing in the life-saving corps.

As is the case with all new ventures, all new ideas, and all tendencies to introduce a little work into a would-be lazy summer, the suggestion of this club last summer was greeted with a very mild interest. Nothing daunted, and strong in his conviction that a life-saving club was needed at every lake, river, or ocean resort, Mr. Knott announced his decision to have an organization meeting. That was far from a success, he gloomily realized at the time—so few people came, so few people seemed interested. Most of them were little boys ready for a diversion from the "movies." But one or two older boys and girls straggled in, and the club was organized. In this meeting Mr. Knott briefly described some of the most essential things to be done for the unconscious person who has been pulled out of the water. And, by the way, the first thing that Mr. Knott tried to impress upon his unresponsive audience was to see that the mouth of the unconscious subject was thoroughly cleared of any obstruction.

Discouraged and disheartened after this meeting, Mr. Knott talked it over with the members of his club committee—Dr. Harry W. Haight of Princeton University Hygiene Department, Professor W. H. Martin, instructor of the Coopers-town Gymnasium and Swimming Club, and Mr. Andrew deJ. Allez, local Scout Master, and he decided that, even with so few interested, he would begin practical work. If he succeeded only in instructing six, it would be worth while.

But almost at once he found that the seed he had sown had borne fruit—a life was saved! And to-day there are two people alive in Cooperstown because this life-saving club exists. Not long after the organization meeting a small boy went swimming at a picnic. He had been very ill, and his heart was in bad condition. He swam out too far. His breathing became difficult. The usual thing followed—he went down. People watched and became frantic. Then the boy's father tried to save him, but the child grasped his protector and both went down. Another man arrived late at the picnic, and saw the excitement around the wharf. Throwing himself into the water he swam quickly to the rescue. Having released the father from the boy's grasp, he brought the lad ashore, the father swimming along beside him. But the child was unconscious and much time had been wasted. No one knew what to do. Some one said, "Roll him on a barrel!" The others said nothing; they gazed and wrung their hands. Meantime, the boy was lying unconscious. Life or death—which would it be? The man who had brought in the child spoke hesitatingly:

"I have heard one lecture on resuscitation," he said; "I will try to see what I can do." He remembered the first point. Here was a child gasping, blue, choking. He opened the boy's mouth. Far down in the throat he discovered a large piece of chewing-gum! The boy had been choking to death on this alone. He laid the child on his face, head on one hand to keep the sand from getting in the mouth, and his head toward the faint breeze that was stirring. The other arm he put above the head and out well to the side, so that the boy would have the opportunity of getting all the air possible into his lungs. Then he stripped off the top of the lad's bathing-suit and began the artificial respiration. Sitting on his right heel, between the boy's right knee and hip, his left foot at the boy's hip, he laid his hands

palms down over the lower ribs, with thumbs parallel to the spine and little fingers lying over the lowest ribs. Then he rocked slowly back and forward bringing his weight on the boy with each forward movement. When he went forward it drove the air out, and when he released his hands and bent back the fresh air came in. He did this from twelve to fifteen times a minute and continued for several hours. At last, the boy began to breathe. Life came back. And the saver of this life was the only person present who had heard a word about the methods of release from the grasp of a person in the water, of the way to carry an unconscious person ashore, and, lastly, the vitally important rules for resuscitation.

The methods of release are not difficult. The prime factor is to get one's hands free, if possible, so as to push back the chin of the subject and then get hold of him in the way you wish to carry him. If you cannot get your hands free, and if you have been grabbed around the neck from the back, grasp the thumbs of the unconscious person and pull them back so as to break his grip. When seized by the hands, the best method of release is to jerk the hands up and down. One or the other motion will release the hold and as in the water one cannot see which way the thumbs lie, both motions must be used. If the subject grabs his rescuer around the body, raise the knee and hit him in the abdominal part of the body, where it will wind him; the rescuer then can manage him as he wishes.

The methods of carrying a subject are comparatively simple. Always approach a drowning person from the rear. If he is struggling, place him on his back, putting your hands under his arm-pits. This gives him a chance to breathe easily, and at the same time enables you to hold him so that he cannot struggle. Then swim on your back, using your legs only. If the subject is simply exhausted or unconscious, turn him on his back and swim on your right side with your left arm over his left shoulder and under his right arm. Another method of helping a tired person in the water is by letting him lie on his back and rest his arms on your shoulders in front, while you swim the ordinary breast-stroke.

These methods of release, carrying, and resuscitation can be easily mastered in a summer, or in even less time. Shortly after the boy at the picnic had been brought back to life, two members of the life-saving club saved a girl who had gone beyond her depth and had been down under the water twice. Her gratitude to the club is beyond words, for her experience will long remain painfully vivid to her.

But the life-saving club has grown. There are

thirty-two members among the men and twenty-five among the women, with a large waiting list of men, women, and children who are joining the organization this summer. The tests to be passed consist of dives of all sorts, of the methods of release from a struggling person, of the methods of carrying, of an oral examination in the Schaefer method of resuscitation and the after-treatment of a drowning subject. There are tests in swimming—long distance, time swims, swimming on the back without using the legs, divesting one's self while in the water of hampering clothing, and swimming with clothes on. Diving for a subject in deep water and bringing him to the surface, then carrying him for a certain distance is one of the hardest tests to pass. But all these are worked over and finally mastered by most of the club members.

There is nothing about the Cooperstown Swimming and Life-saving Club that is unattainable. All average swimmers can do what has already been accomplished by this club.

Let some one in every watering-place this summer organize a similar club. For any details or necessary information Mr. Knott can always be communicated with at Cooperstown, and he will gladly help others to start the good work. Any one can do this. It is the best of summer recreations. It has an undeniably healthful quality because of the exercise it necessitates. It has a practical quality, for it saves lives. And it has a deeper moral quality: it makes people strive to learn something that may sometime be of use—something that may lessen the large death-toll that is levied every year in our watering-places. Pitifully many are the times when lives could have been saved if only more had been known by the onlookers.

One of the most essential features of the club is that it gives confidence. Any one who has taken this course is not afraid of doing the wrong thing to a drowning or unconscious person, because he feels his knowledge and power. He is willing to try what he can do. He dares try what he knows. He does not waste time, nor does he scream. He has learned that time counts in a drowning accident. He has learned much that is invaluable if one lives near the water.

Let us all, individually and in clubs, learn all we can to lessen the fearful death-toll from drowning accidents each year. If in one season in Cooperstown, where there were only fifty-seven members of such a club, two lives have already been saved, has it not been worth while? Surely there is but one answer. And with that answer comes the knock of opportunity at your door—why not go and do likewise?

NATURE AND SCIENCE FOR YOUNG FOLKS

RAISING WINGED JEWELS—A CALIFORNIA GIRL'S BUTTERFLY-FARM

"ANY intelligent girl or boy can earn \$50 a week capturing and propagating butterflies. No capital is required, no knowledge of the science of



READY FOR A BUTTERFLY HUNT.

entomology, and there are few expenses connected with the business. The work is interesting, and so light that a child can do every part of it. There is an unceasing and ever-growing demand for these insects, and each one has cash value."

So says Miss Ximena McGlashan, a young California girl. And she ought to know, for, as her first experience at the work, in ten weeks, one summer, she cleared over \$500 raising and selling butterflies. That was a couple of years ago; and since then, Miss McGlashan has given practically all of her time to the work each summer, while taking a college course during the winter months. Now she has correspondents all over the country, and in Europe, too, who are

anxious to learn all about this fascinating and lucrative business.

The breeding-cages used in the industry are sometimes elaborate affairs, but Miss McGlashan raises her caterpillars in fruit-jars and boxes and barrels covered with gauze. As for her market, a scientist of world-wide reputation takes everything she can raise or catch, and pays a flat rate for every specimen, whether common or rare, the commoner ones, however, being limited to 100.

A net and a few cyanide bottles comprise the outfit by day, and for night work the net is exchanged for a lantern, or, better still, a Baldwin miner's lamp, which burns carbide. It is necessary, Miss McGlashan says, to secure female moths and butterflies in order to carry on a farm, and for this purpose one should capture as many "flies" as possible, both day and night. Some portion of the catch will be in perfect condition and can be sold, but the greater number of insects have slightly damaged wings, or worn plumage, and are unsalable. The cyanide is a strong anæsthetic which renders them unconscious in a few seconds; but if brought out into the open air, they will revive after being in the bottle as long as fifteen minutes. You therefore sort over your catch often, placing the salable flies in a separate bottle, and each female that is not marketable in a paper box.

Many butterflies and all moths will lay their eggs on the sides of a box or paper bag. To feed



EXAMINING THE EGGS.

butterflies in captivity, all that is necessary is to put each day into the box where they are confined a piece of dried apple that has been soaked either in honey or sugared water.

The eggs of different species will be of various colors, and will differ greatly in size and shape. No attempt should be made to remove them from

thousands of moths assemble on the tree, scenting the mixture from a distance of half a mile. In a few moments they are entirely helpless and partially insensible, and it is an easy matter to capture them. Five or six hundred an hour may easily be obtained in this way.

In the words of the little butterfly-lady: "You may have a moth that will sell for a dollar a specimen, and the female may lay three hundred eggs. Supposing that all produce perfect flies, and supposing there are as many males as females, you will then have 150 females, which may lay 300 eggs each. If all these produce perfect flies, you will have 45,000, and if you get \$1 apiece, you will have \$45,000.

Of course you won't, and you know you won't, but theoretically, at least, there are millions of dollars in the business, though I am content to average \$75 a week at the present time."

So far as is known, there are few people in



FEEDING THE LARVÆ.

the sides of the box or bag, but the pieces of paper to which the eggs cling should be cut out and placed in a small bottle or test-tube, closely corked. Some will hatch out in a few days, and some will require weeks and months, but it is little trouble to examine them daily.

After hatching comes the search for food. This searching is not done by the little caterpillar, but by the enthusiastic "fly-raiser" himself. The food-plant upon which that particular species of larvæ will feed must be discovered. Experiments will probably have to be made before the right plant is found. The leaves should be obtained from a dozen or more different plants. From these, little strips are cut and given to the larvæ. Next day, if it is found that the larvæ do not seem to congregate on any of these strips, another dozen of them are added. When the proper food is at last found, a proper supply of that particular plant is given daily.

Many of Miss McGlashan's choicest and most valuable specimens are caught at her home doorstep, or among the bushes and weeds within a hundred feet of it. The study of moths is comparatively new, and for this reason the demand for moth specimens is greater than that for butterflies.

In capturing moths at night, Miss McGlashan uses a mixture consisting of two quarts of stale beer, half a pint of rum, and a sufficient quantity of brown sugar to make a thick mixture. With an ordinary paint-brush, she then paints a tree with this composition. This is called "sugaring" a tree. In a few minutes after this has been done,



FEEDING BUTTERFLIES IN BOXES AND PAPER BAGS.

America who attempt to raise and breed specimens for the market, except scientists, who do

not care to tell their business to everybody. But it is perfectly practicable for every housewife, girl, boy, or family, especially those that live in the country or in the suburbs, to raise at least a limited number of "flies" for the market. When a vine or shrub is attacked by caterpillars, the



PACKING "FLIES" FOR SHIPMENT.

thing to do is to catch the pests, hatch them into specimens, and thus make them more than pay for their board.

ROBERT H. MOULTON.

THE LATEST THING IN NAVAL AVIATION

A Catapult for Seaplanes

Just as the jumping athlete needs a running start, so the *aéroplane* must gather speed before rising from the ground. We all know the part that air-craft have played in the present war in watching the foe's movements and even in making attacks from the sky. Indeed, the flying-machine has largely upset the former methods of waging war, because it has now become almost impossible for a general completely to surprise his antagonist.

The Navy, too, would like to use air-craft for scouting purposes; but to be as useful to the fleet as it is to the army the flying-machine should be able to accompany the moving squadron and to rise from the deck of the vessel, no matter how far out at sea the ships might be. But this has not been practicable until of late, because it was not convenient, or even possible, to provide a

long enough run upon the deck to give the air-craft sufficient speed to launch it safely in flight. Remember, the naval *aéroplane* is different from the military flier. Instead of having wheels to start and to land upon, the seaplane has pontoons, forming a boatlike structure, by means of which, in returning from its flight, it can alight upon the water.

When the surface of the water is nearly smooth, the seaplane can gather enough headway to lift it into the air; but the ocean has its billows, and more often than otherwise it is rough. A seaplane cannot, therefore, go fast enough upon troubled waters to get the impetus necessary to carry it aloft. Besides, the naval air-craft is rather heavy, at least more so than its military rival. This adds to the difficulty of getting the necessary running-start. During the Allies' campaign at Gallipoli, Turkey, the British had an *aéroplane* ship, the *Ark Royal*, from whose specially constructed deck it was possible to send aloft certain light, short-flight flying-machines. This could only be done when the *Ark Royal* was at anchor and the weather favorable. The vessel was not a fighting ship, but merely a converted freighter having only a moderate speed.

Now, the admiral of a squadron wants fast ships, and seaplanes, to be useful to him, must be able to mount into the sky from his battle-craft, and none of his guns must be interfered with. In short, the flying-machine must be launched after a short run. Captain Washington I. Chambers, U. S. N., has invented a way to do this. He has worked out what he calls an *aéroplane* catapult, and the very latest form of this apparatus is now in place on board the armored cruiser *North Carolina*. It is being used in training our naval air-pilots.

The catapult consists of a narrow-gauge railway, something over forty feet long, mounted upon trestles which can be quickly erected, or taken apart and stowed away. Upon this railway there is a low four-wheeled car which carries the seaplane during the launching run. The car is pulled toward the stern of the ship by a light wire rope. This rope is passed over a number of pulleys, and these multiply the motion given the cable by a piston which travels only about forty inches. The piston is operated by compressed air, and the air-supply is so nicely controlled that the speed of the piston and the speed of the car are gradually, but very quickly, increased. That is to say, before the car with the seaplane reaches the end of the rails a velocity of fifty miles an hour is attained. This speed is not only enough to sail the flying-machine into

the air, but it will give sufficient momentum to keep the seaplane aloft until her driving-engines are fully able to propel her onward.

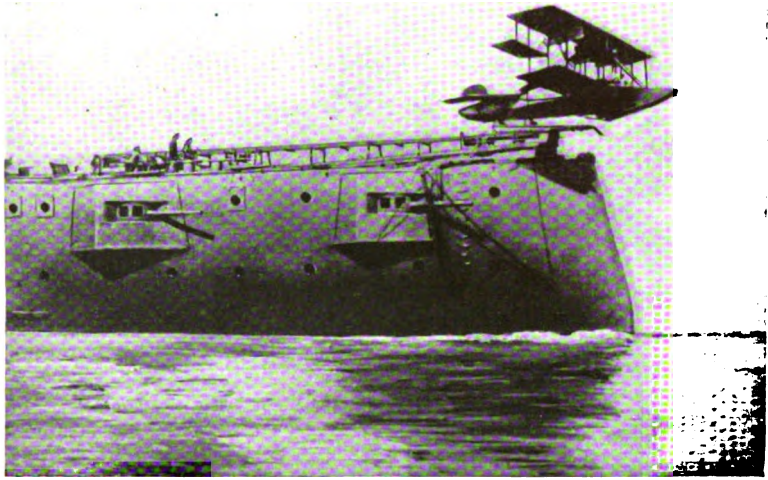
The motion from standstill to launching is so smooth that there is no danger of throwing the pilot out of his seat or of causing any injury to the seaplane itself.

As soon as one flier has been launched, the car is run back to the starting position and is ready to receive another aircraft and send it off on scouting service.

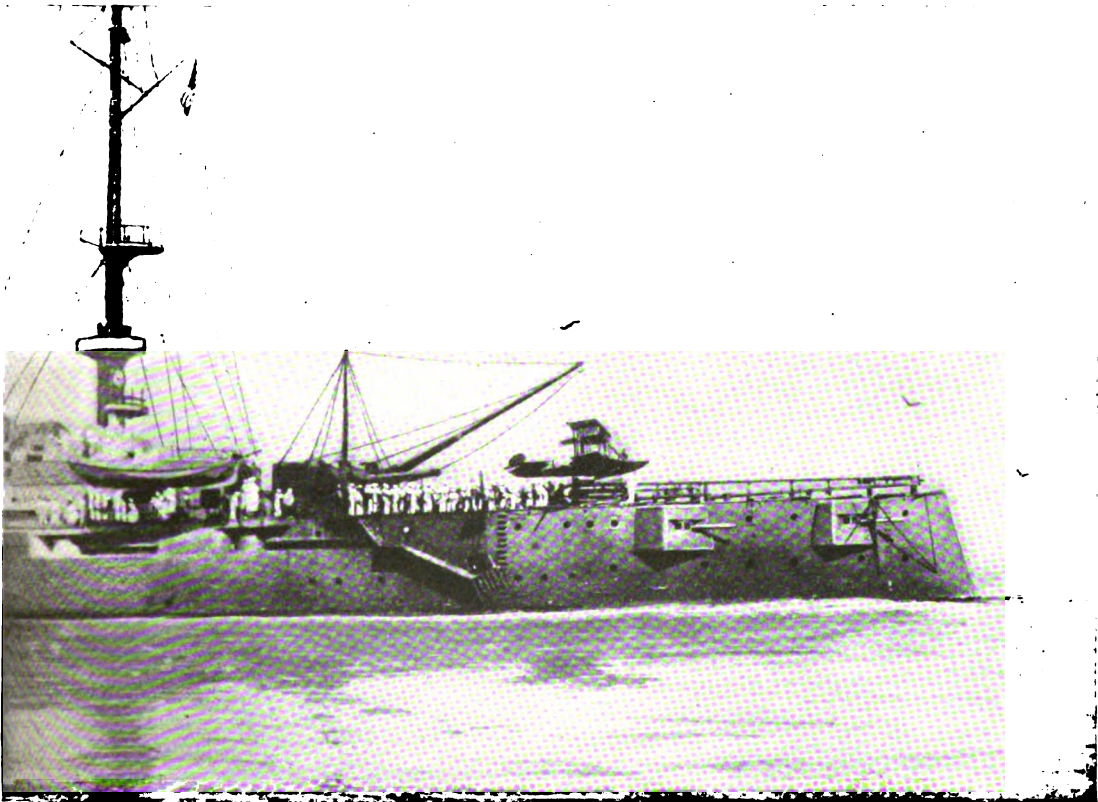
It makes no difference if the sea is rough and the ship steaming along—the seaplanes can be catapulted into the air. When they return from their flights, they are sturdy enough to alight upon rough water, and ride it in safety until, under the lee or sheltering side of the parent

ship, they can be hoisted aboard by means of a derrick.

ROBERT G. SKERRETT.



THE SEAPLANE AT THE MOMENT OF LEAVING THE SHIP.



LAUNCHING A SEAPLANE FROM A BATTLE-SHIP.

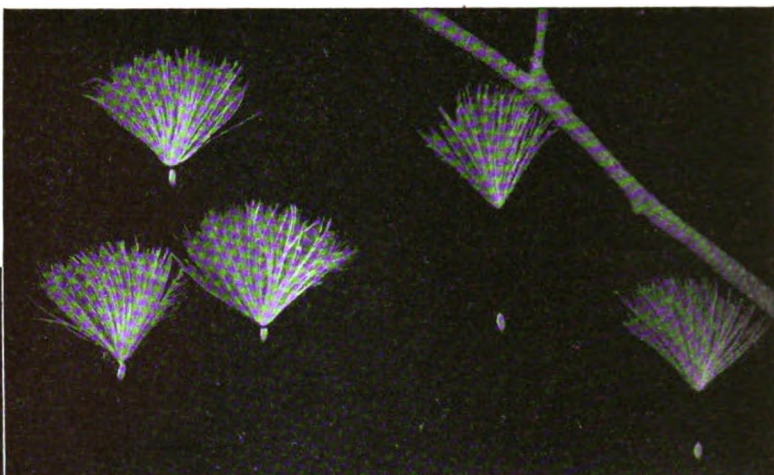
The photographs were taken when the *North Carolina* was slipping along at cruising speed.

SEED-SOWING AIR-CRAFT

AGES before man had devised the *aéroplane*, nature was launching innumerable fleets of fairy-like air-craft, carrying not bombs filled with deadly explosives, to spread ruin and desolation where they fell, but more won-



SEEDS OF GOAT'S-BEARD.



THISTLE SEEDS.

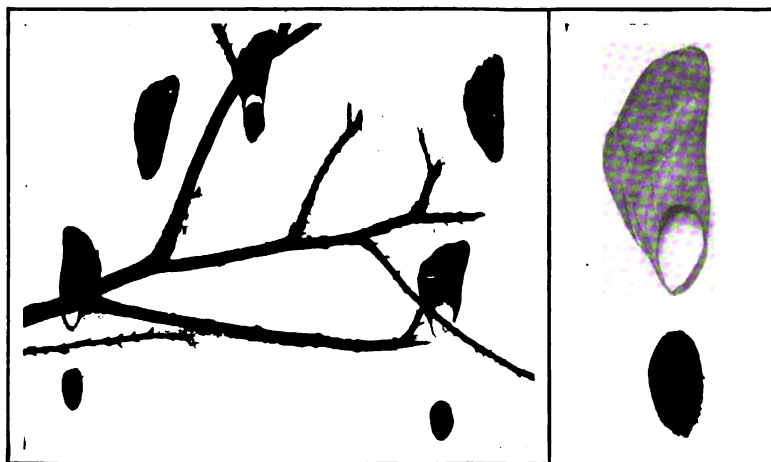


derful freight—tiny seeds in which were packed living germs of plants like those from which they had detached themselves when they had sailed away on their wonderful voyages into the unknown.

fact that, as the flying seeds dash against these obstacles, the fruits are released.

In the case of many species of pine the same thing happens. The attachment of the seed to the winglike process is very slight. A sharp knock, against the branch of a tree, perhaps, and the heavy seed tumbles to earth, and presently a little pine-tree begins pushing its way up into the sunshine.

S. LEONARD BASTIN.



WINGED FRUITS OF COULTER'S PINE.

ENLARGED.

Such are the fruits of many common thistles, which are adorned with fluffy parachutes that

filled with birds from dusk until dawn. Onward they hurry through the darkness. If they see the

BIRDS AS TRAVELERS

BY FRANK M. CHAPMAN

*Curator of Ornithology, American
Museum of Natural History,
New York*

THE NIGHT FLIERS

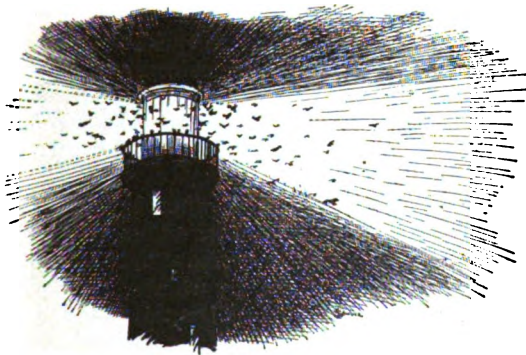
It is difficult to believe that at times during the season of migration the sky at night is filled with birds from dusk until dawn. Onward they hurry through the darkness. If they see the

earth below, it must be too dim to guide them on their journey. Still, they find their way just as surely as do those birds which travel by day.

The day fliers, as we have seen, are hardy rovers which are used to the open, and do not hesitate to venture far from cover. But the night fliers are the shy, retiring birds of thickets and undergrowth which rarely go far from their own door-step. Or, if they live in trees, their flight is usually only from tree to tree. The thrushes, warblers, vireos, and small flycatchers are all night fliers.

Most of the snipe live along the beaches or in treeless places, and, as we have learned, they travel by day. But that retiring member of this family, the woodcock, lives in dark, shady places, and waits for the sun to set before he starts on his journey.

The snipe and plover of the open, with their long, pointed wings, need not fear hawks when they are in the air. But the woodcock, with his short, rounded wings, would have small chance of escaping if a bird of prey should give chase. For several reasons, we know more about the travels of the night fliers than we do about those of the day fliers. First, because many more birds travel by night than by day. Second, because practically all birds that fly by night are real migrants. Third, because the night fliers seem unable to avoid the lighthouses in their way, and the number killed by striking these beacons erected for man's safety has given us a vast



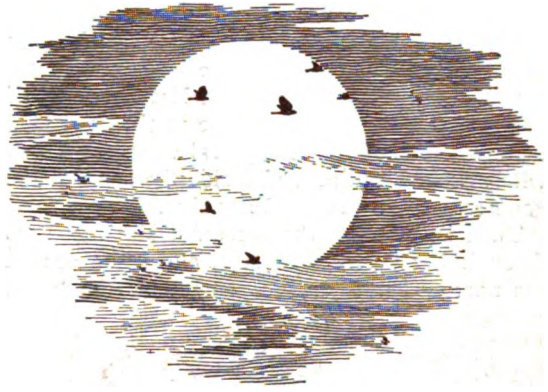
NIGHT FLIERS ABOUT A LIGHTHOUSE.

amount of information concerning the birds that travel after dark.

By night as well as by day our ears can tell us much about the number of birds that are passing overhead. Indeed, during nights when many birds are flying, we can, from favorable places, such as high hilltops or cities in the birds' highway, hear their call-notes almost constantly. The hill brings us nearer the birds, and the city lights

bring the birds nearer to us. Light seems to attract them as it does moths.

An ornithologist at Madison, Wisconsin, states



THE BIRDS IN THE MOON, AS SEEN THROUGH A TELESCOPE.

that on the night of September 14, 1906, no less than 3800 bird-calls were heard from one place. The average was twelve calls for each minute, but at times so many calls were heard that it was evident the air above was thronged with birds.

Study the birds' time-table, and some night during the season of migration go out of doors and listen. You may hear the chirp of warblers, the metallic *chink* of the bobolink, the soft whistle of thrushes. Nothing I can write will make you realize more clearly how wonderful is the journey through the darkness of these small feathered travelers.

A NIGHT IN A LIGHTHOUSE

It would be a far more thrilling experience to pass a night in a lighthouse when many birds are migrating. Then you would see sights such as you never dreamed of. A lighthouse having what is called a fixed white light attracts many more birds than one that flashes, or revolves, or shows a red light.

When the statue of Liberty was erected on Bedloe's Island in New York City harbor, it was at first fitted with a strong light which proved a deadly lure to many birds. While it was thus lighted, I went with several other ornithologists to spend the night on the island during the height of the fall migration. The weather was clear and favorable for bird travelers. Soon after dark we began to hear the calls of passing birds. The air seemed filled with them, but they were flying too high to be attracted by the light. All was going well for the night fliers, and they were making rapid time on their journey toward the south.

But at eleven o'clock the sky became clouded.

Distant thunder was heard; soon it began to rain lightly. At once birds appeared about the light. At first they were only a few; but their numbers increased rapidly, and within a few minutes there were hundreds of them.

From the feet of the great figure which holds in its hand the fatal torch, the birds circling in the rays of light above looked like a swarm of golden bees. In order that we might be among them we climbed the long spiral stairway, which winds around and around inside the body of the goddess, until we reached her shoulder.

Then we mounted the narrow ladder that runs through her upstretched arm, and came out on the narrow balcony which surrounds the torch.



Bobolink.

Hooded Warbler.

Song-sparrow.

SOME NIGHT FLIERS.

Dazzling white pathways stretched out on every side into the blackness of the night.

The birds came from the north. We could first see them when they appeared at the end of a lane of light. There they paused for a moment. Then, as though drawn toward us by an unseen power, they would dart straight toward the lantern. Some hit parts of the statue or the glass about the light, and two or three actually flew against us as we sat behind the low rail of the balcony. Others, more fortunate, passed onward and, so far as we could tell, did not return.

In spite of the great numbers seen about the light only about thirty hit it, and none of these was killed. For every bird seen, thousands were heard passing. It was a scene of indescribable interest. We seemed to have torn aside the veil which hides the mysteries of the night and with the searching light discovered some of nature's secrets. What a marvelous number of birds must be traveling when hundreds are sometimes killed at a lighthouse on a single night!

Before the first signs of day were visible the birds had disappeared from about the light. Tired

and hungry, they now looked for food and shelter in some woodland. Surely, at such a time, New York City must seem a most unpromising place for breakfast. It is no wonder, then, that during the season of migration city parks should be filled with wing-weary travelers. From the sky they must look like wooded islands surrounded by a sea of houses. So the migrating birds which, in the country, would be scattered over a wide area, in the city are all drawn to the only places where they may find trees to alight in and insects to eat.

THE NIGHT FLIERS THROUGH A TELESCOPE

It is surprising to look through a microscope at a drop of what seems to be pure water and find scores of little animals swimming about in it. It is even more astonishing to look into the sky at night through a telescope and see that countless numbers of birds are flying through it.

This can be done only when the moon is full or nearly full. Then it forms a background against which the birds are seen as they cross between you and its bright, golden face. A small or low-power telescope is used in order that all the moon may be in the field of the glass. In this way the background is made as large as possible.

At various times and places I have watched through a telescope the night journeys of birds. One night in early September, near my home at Englewood, New Jersey, with a friend, I saw 262 birds cross the moon between the hours of eight and eleven. Some passed so quickly that they were mere blurs. They were evidently very near. Others were in sight for two or three seconds; the movements of their wings could be seen distinctly. They were undoubtedly a long way off and very high.

Now in order to realize what a very small part of the birds that were traveling were those we saw, we have only to compare the size of the moon with that of all the sky which we see when we look at the moon. Let us imagine that I could have seen just as well everywhere as I did in that long, narrow wedge of air which stretched from the telescope to the moon. What an amazing throng of birds I should have beheld, all hurrying down the air-line to their winter homes!

If we knew exactly how far the birds observed were from us, it would be possible to tell how high above the earth they were traveling. Those that passed most quickly were of course the nearest and the lowest. Probably they were flying at the height of those birds whose call-notes we can hear so plainly as they go over us. This perhaps

may be anywhere between five hundred and fifteen hundred feet. But calculations show that those which were farthest away were probably three miles above us. We know that, as we go upward from the earth, the air becomes thinner and that what is called its pressure grows less. So it is much easier for a bird to travel at a height of two or three miles than near the ground. Beyond a certain height the air would become so thin that the bird could not live. Just how high this is we do not know; with man it is about five miles.

The tops of the highest mountain-peaks in the Andes are nearly that height, but the great condor soars easily far above them. On some of these same mountains small flycatchers and humming-birds live the year around nearly three miles above the level of the sea. Thus we know that at even this height the night fliers could travel comfortably.

MORE LIGHT ON THE NIGHT FLIERS

Few bird students have had a better opportunity to see birds on their night flights than was afforded Dr. Witmer Stone in Philadelphia. On the night of March 27, 1906, a great lumber-yard in that city caught fire, and like a vast searchlight it showed the bird army flying overhead. For at least several hours the feathered invaders passed by steadily, and at ten o'clock, when the flight was at its height, Dr. Stone estimates that there were two hundred birds in sight at once. "They flew," he writes, "in a great scattered,

wide-spread host, never in clusters. . . . Far off in front of me I could see them coming as mere specks, twinkling like stars, and gradually growing larger as they approached, until their wings could be distinguished as they passed overhead. . . . Over all the illuminated area, and doubtless for a greater distance beyond, they seemed about evenly distributed, those immediately over the flames glowing like coals of fire, those farther away appearing silvery white."

Dr. Stone believes that most of the birds were juncos and sparrows of several kinds, and the partly burned bodies of some unfortunate night fliers that had come too near the flames proved that he was correct.

A GIANT FLAG

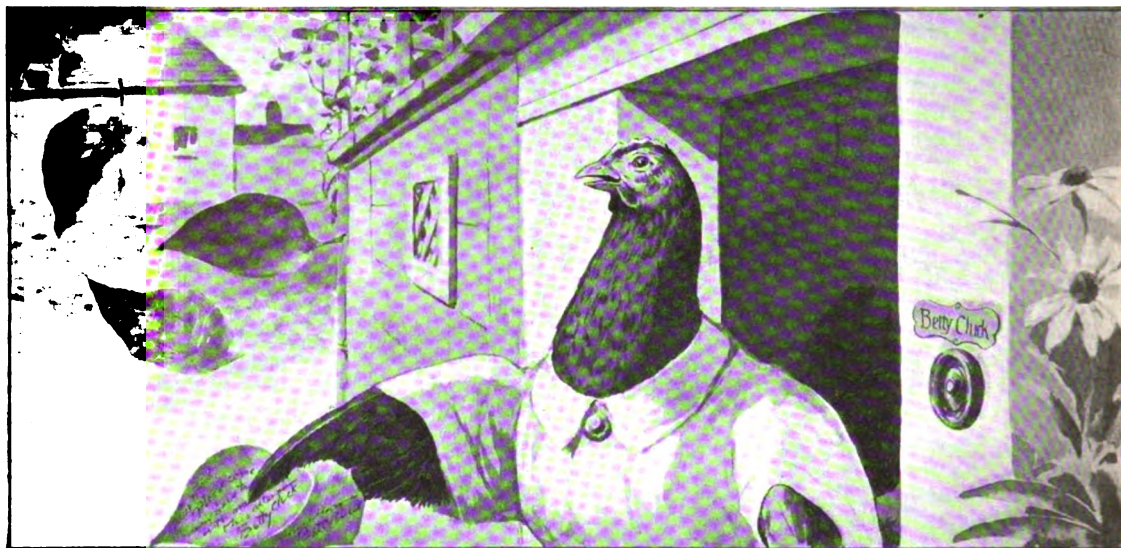
At the reunion of the Grand Army, held in Washington, District of Columbia, in 1915, what is believed to be the largest flag in the world was carried in the parade by the delegation from Canton, Ohio. It measured one hundred and thirty feet in length by eighty feet in width. The stripes were over six feet wide, while the stars in the union measured five feet across from point to point. The weight of the flag was over half a ton, while one hundred and seventeen men were required to carry it along the line of march. More than twenty thousand hands set the necessary stitches, while sewed into the stars are the names of over sixteen thousand patriotic men and women of Canton who contributed either money or labor to the construction of this giant emblem.

A. B. NEISS.



CARRYING THE GREAT FLAG IN THE GRAND ARMY PARADE.

FOR VERY LITTLE FOLK



BETTY CLUCK'S TEA-PARTY

BY MARJORIE DOUGLAS

ONE day in the spring, Betty Cluck, the black hen, decided to give a tea-party. She wrote on some lilac-leaves:

Dear Friend:

Please come and have tea with me this afternoon.

Betty Cluck.

Then she called Bobby Breeze and said, "Take a leaf to each of my friends."

"Yiiss," screamed Bobby Breeze. He said it very loudly as he blew away with the leaves, because he knew that Betty was quite deaf.

Betty tied on her apron to prepare the things that everybody liked. She made heaping plates of clover sandwiches, and lots of strawberry tarts. Then she gathered tulip-cups, and filled a big pitcher full of buttercupade.

When everything was ready, she dusted off the table with her wings, and set out all of the good things. Then she smoothed down her feathers and put on her best apron with the little ruffles.

The guests began to arrive. The first were Gibby Gander and his wife Goosey Gander; and they both wore new yellow shoes.

"Good afternoon, Betty Cluck," said Gibby Gander. "How very smart you are looking."

"Good afternoon," said Betty. "You are very kind." She always answered that because she could not hear what was said to her, and did not wish to be rude.

Then up strutted Mr. and Mrs. Pompous-Gobbler, the big turkeys.

"Good afternoon, Betty Cluck," said Mrs. Pompous-Gobbler. "The sky looks cloudy; I hope the rain will not spoil your party."

"Good afternoon, how kind you are," answered Betty.

Uncle Rooster came and brought his three young nieces. Their little red combs were quite new, and this was their first party.

The whole family of Diddledum-Ducks waddled up, all quacking at once, and each wearing a flower.

The last to arrive were the Pigeons. Their white tails were spread out like fans, and Loo-Loo Pigeon carried a parasol daintily over her head, while Pouter strutted proudly by her side. But there was such a crowd that they could not get near the table. They only caught a glimpse of the sandwiches under Uncle Rooster's wing, and they looked so good it made the Pigeons twice as hungry. Betty saw that some of her guests did not have anything to eat, and passed around the plate of sandwiches.

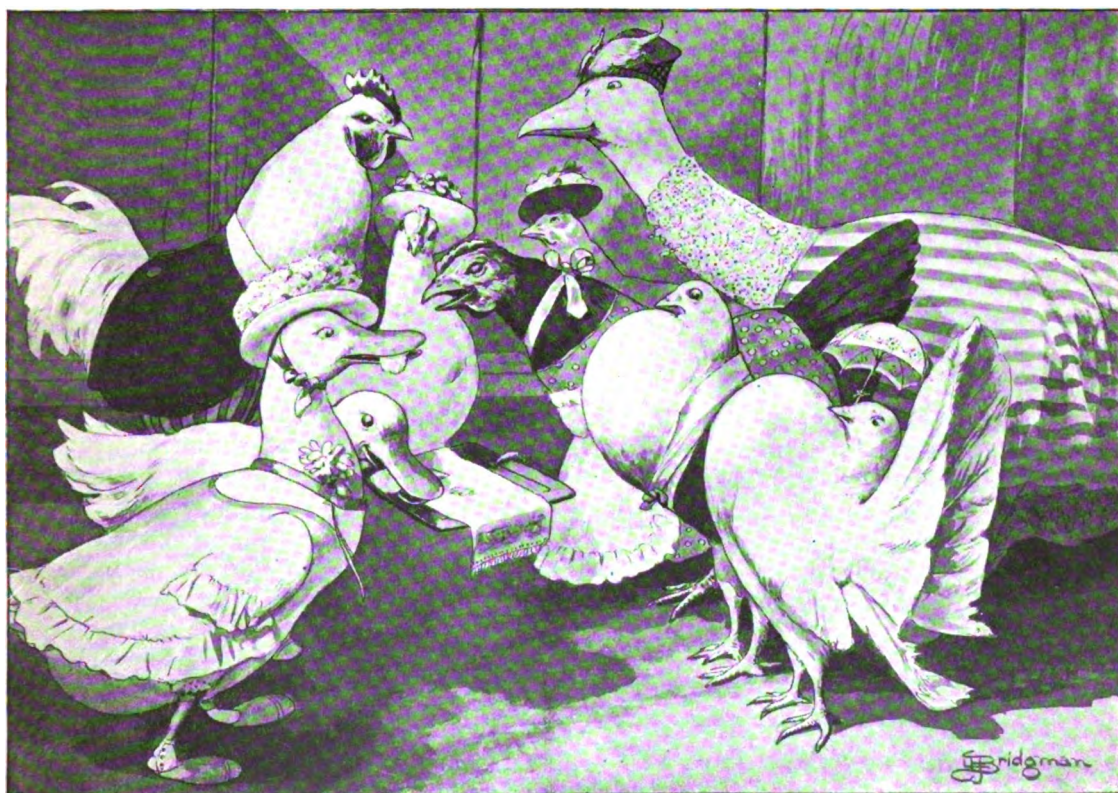
Pouter puffed out his chest and said, "Good afternoon, Betty Cluck."

"How do you do, coo-roo," said Loo-Loo.

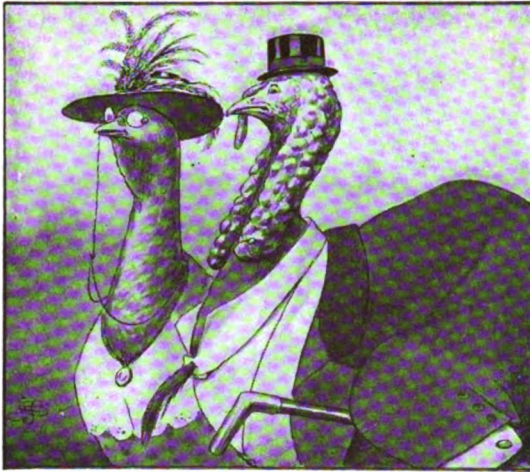
"Good afternoon, how kind you are," said Betty again. "Will you have a sandwich?"

The Pigeons are always very polite. "After you-u," said Loo-Loo to Pouter. "After you-u," said Pouter to Loo-Loo.

Betty could not hear what they said, and as they did not take any sandwiches, she turned and offered them to the Diddledum-Ducks, and they ate them all.



"LOO-LOO PIGEON CARRIED A PARASOL DAINTILY OVER HER HEAD."



MR. AND MRS. POMPOUS-GOBBLER.

"I did not get any sandwiches, did you?" said Pouter, indignantly, to Loo-Loo.

"Indeed, I did not get any more than you-u!" she answered.

"The next time Betty Cluck offers me anything," said Pouter, "I will say 'Yes, thank you,' and nod my head. So that, if she does not hear me, she will at least see that I want something to eat."

"So will I," said Loo-Loo.

When all of the sandwiches had been eaten, Betty passed the strawberry tarts.

"Coo-roo; yes, thank you," said Pouter, and nodded his head several times.

"Yes, thank you," said Loo-Loo, and nodded her head up and down.

At last Betty understood the nod, and waited while each Pigeon took two tarts. After this the tulip-cups were passed around, and, as these were quite large, Pouter and Loo-Loo Pigeon shared one together.

When Betty came with the pitcher of buttercupade, "Yes, thank you-u," said the Pigeons together, and nodded their heads. Betty filled their cup full.

Said Pouter to Loo-Loo, who was sipping the delicious drink, "Let us always nod our heads, then we shall be sure to get everything we want."

So now you see why it is a family habit for the pigeons to nod their heads.

THE WAY TO SLEEP

"DEAR ME!" sighed May Elizabeth. "Oh, my!" growled Jimmie Jed; "I wish there was a way to sleep and not to go to bed!"

"Ho, ho!" laughed Mr. Elephant; "*my* slumber is quite sweet, And I just spend the night time a-standing on my feet."

"*Squeak, squeak!*" said Mr. Brown-bat; "none of you people knows How nice it is to sleep head down, a-hanging by your toes."

Sam Stork looked up and murmured, "Attention, please, I beg; *My* choice of all the ways to sleep is standing on one leg."

Then Mrs. Duck spoke mildly, "Behold *my* son and daughter;

"*They* have the very *safest* dreams out sleeping on the water."

"Oh, pshaw!" scoffed Madam Robin; "a habit with your race!

Now when it comes to napping—why, a tree-top is the place"

Then Tony Toad came hopping. Said he, "'T is my belief By day or night the *best* place is under a burdock leaf."

"*Who! who!*" Miss Owl reported; "no time to sleep at night; I perch aloft, and draw my shades, and nap in broad daylight."



"Oh, oh!" said May Elizabeth. "My, my!" said Jimmie Jed;







"I like our way the best of all." And off they ran to bed.



Florence Boyce Davis.




A True Story of a Canary





by C.H. Brandt.

 Beauty is my name, and I am a fluffy little  of yellow. I belong to Boy. Shall I tell you how I came to live with him?

One day I found the door of my  open, so out I walked to see something of the world. Poor little me! Little did I know what an experience I should have. I flew from one  to another, spying at last an open . That was enough! I had always longed to be out in the pretty  shine. Pretty? Yes! but oh, so strange! Instead of the lovely green  and  I had expected to find, everything was white and cold. What could this all mean?







However, I enjoyed my freedom for a little while, then flew into a large  to rest. My  were not used to flying so far, and the wind was sharp and strong.

It was hard for a little  like me, and I was about discouraged when, coming down the  I saw the Boy. I chirped a little call to him, and he answered me. I could see that he was a good  for he spoke and whistled so gently.

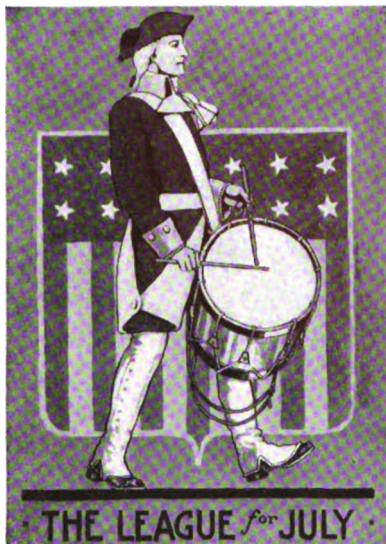
I followed him the best I could, and when he turned into his own  I turned also. He saw me, and thinking I must be tired, hungry and cold, he brought me some fresh green lettuce  . Then he picked me up in his  and carried me into the nice warm



I was so happy to be indoors again.

 I now have another pretty cage which hangs in a sunny place. My boy looks after me each day to see that I have fresh  and water. I also have pieces of  and . I sleep in my  every night and have learned to rock myself to sleep. I love my boy, and try to show my love for him by singing beautiful songs every day. 

ST. NICHOLAS LEAGUE



"A HEADING FOR JULY." BY ROBERT MARTIN, AGE 15. (HONOR MEMBER.)

Two of the subjects for this month's competition, "When School is Over" and "Where I Have Good Times," are especially appropriate to our date of issue; for when this July number greets you, the dreadful "exams" will have been duly (and, let us hope, triumphantly) consigned to the limbo of the past, the final lesson-hurdle will have been taken with flying colors, and Vacation's gay procession will be free to start toward the happy scenes and places that, every summer, are waiting to welcome visitors. The glories of these haunts and fastnesses of happiness, whether by mountain, lake, or seashore, are so clearly reflected in the contributions of our young photographers that to them, we think, must be accorded first honors in THE LEAGUE exhibit for this month. Several of the views here printed seem, indeed, just so many voices of the great outdoors, calling us irresistibly to the joys of the summer camp or the sunny beach, the rest beneath the mountain pine or the dip in the tumbling surf, the splash of an oar beside the lazy canoe or the sturdy "swish" of the young golfer's "follow through" as the ball whizzes from the tee. Just as faithfully, too, have our young poets pictured the delights of summer in their glowing verses; and as we scanned the hundreds and hundreds of rhymes and photographs that poured in upon us, the task of choosing the few best, where all were so very good, was lightened by the thought of the literally countless places in our favored land where young folk do have good times "when school is over."

But in all this holiday rhapsody, we must not forget or overlook the capital pictures by our young artists this month, which have been extremely clever and ingenious in design and admirably drawn. Not a few of our Honor Members in this field are evidently almost ready to join the ranks of the successful illustrators for books and magazines.

Last of all, the prose-writers sent in a host of excellent little stories, each recounting "A Brave Deed," and every one a credit to its author.

PRIZE-WINNERS, COMPETITION No. 197

In making the awards, contributors' ages are considered.

PROSE. Gold badge, **Lois Meier** (age 16), Massachusetts.

Silver badges, **Margaret Southam** (age 15), Canada; **Elizabeth Gray** (age 13), Pennsylvania; **Tudor Gairdner** (age 14), Nebraska; **Justine Hartley** (age 15), Iowa; **Frances Gillmor** (age 12), Massachusetts.

VERSE. Gold badge, **Eleanor Slater** (age 13), New York.

Silver badges, **Leota Lohr** (age 14), Illinois; **L. Burton Crane, Jr.** (age 15), New Jersey; **Martha Hodgson** (age 10), Georgia.

DRAWINGS. Silver badges, **Margaret J. Sanders** (age 15), New York; **Joy Paine** (age 13), New York, **N. D. Hagan** (age 9), Ohio; **Philip Miller** (age 17), Wisconsin; **Helen Fabyan Bingham** (age 12), District of Columbia.

PHOTOGRAPHS. Gold badges, **S. Raymond Eddy** (age 15), Virginia; **Henry M. Justi, Jr.** (age 17), Pennsylvania. Silver badges, **Jane Elizabeth Luce** (age 15), Arkansas; **Elizabeth McLean Timpson** (age 14), New Jersey; **Isabelle M. Craig** (age 13), New York; **Margaret Overington** (age 11), Pennsylvania; **Gertrude A. Cushing** (age 15), New York; **Grace Bradley** (age 15), New York; **Agnes Janeway** (age 11), Maryland.

PUZZLE-MAKING. Silver badges, **Margaret S. Anderson** (age 16), Ohio; **Marguerite A. Harris** (age 13), Virginia.

PUZZLE ANSWERS. Gold badges, **Vivian Sauvage** (age 16), New Jersey; **Ellen Windsor Lothrop** (age 14), New York; **Margaret McEntee** (age 11), New York.



BY CHANDLER OSBORN, AGE 14.



BY ISABELLE M. CRAIG, AGE 13. (SILVER BADGE.)

"WHERE I HAVE GOOD TIMES."

WHEN SCHOOL IS OVER

BY LEOTA LOHR (AGE 14)

(Silver Badge)

THE sweetest of melodies swell on the air,
The fairest of flowers are blooming;
The rose opes her petals with dignity rare,
The gardens and woods perfuming.
The sunshine is flooding the beautiful earth,
The bees softly hum in the clover,
The meadow-lark to us is calling in mirth,
"Come, frolic, for school is over!"

The heart in each bosom is leaping with joy,
As the sun through the window comes streaming.
The face of each girl and the face of each boy
With gladness and smiles is beaming.
One by one we are putting our school-books away,
And wiping the dust from each cover,—
Ah, yes, we are ending our study to-day;
We're joyful when school is over.

But suddenly vanish the smiles from all eyes,
Our gladness is changed to grieving;
Forgotten the sun and the lovely blue skies,
At the thought of the friends we are leaving.
And embracing our comrades in study and play,
A tear in their eyes we discover;
And each one reflects, as he goes on his way,
"There's some sadness when school is over!"



"WHERE I HAVE GOOD TIMES." BY S. RAYMOND EDDY, AGE 15.
(GOLD BADGE. SILVER BADGE WON DEC., 1915.)

A BRAVE DEED

BY LOIS MEIER (AGE 16)

(Gold Badge. Silver Badge won June, 1916)

THE bravest deed is not always the one requiring physical courage and daring. To be able to do the hard thing, without thought of self, is one of the bravest acts a man can do. Nowadays we hear of many courageous deeds on the battle-fields of Europe. One of the bravest, to me, is told of a French general.

Stepping out before the ranks one morning, the general asked for volunteers for a certain expedition. "But do not decide hastily," he cautioned, "for it is a very dangerous mission. He who goes may never return."

Instantly a young, lithe form separated from the ranks, and the startled general beheld his own son before him. The face of his patient wife at home flashed across the general's memory. Their strong affec-

tion and hopes for this, their only child. Could he let him go? Only a moment did he stand there; then, stepping forward and stretching out his arms hungrily to his boy, he clasped him close to his heart, then thrust him away, not ungently, and said firmly, "Go, my son!"



"WHERE I HAVE GOOD TIMES." BY HENRY M. JUSTI, JR., AGE 17.
(GOLD BADGE. SILVER BADGE WON JAN., 1914.)

A BRAVE DEED

BY MARGARET SOUTHAM (AGE 15)

(Silver Badge)

BENNIE, aged six, shivering and dripping, stood in the hall amidst a startled family, while a gesticulating French Canadian held forth:

"*Oui*, M'sieu, I am come fas' down ze reevor in ma canoe, I been feesh,—you buy ma feesh? No? Ah well! I come queekly, ver' queekly; I hear cry; it say, 'Elp! 'elp!' I turn, I see ze small boy in deep watter. Ah! it ees fearful momen'. But I am ze brave Pierre Dupont! I swing canoe; to ze li'l' boy I go. I seize ze paddle—see! I hold him out. Ze li'l' boy grab him. Now, M'sieu, I am brave—wat you call—'ero. Zis boy I catch. I fear noding. Wiz great power I drag him to ma canoe. To shore we go; he say he leeve here. I breeng him. *Voilà*, M'sieu! He is safe! Ah... M'sieu, t'ank you, t'ank you, you are kin'."

That night, Bennie, warmed and comforted, gave his version of the dramatic rescue:

"Oh, Daddy! it was such fun! I was chasing a wee



"WHERE I HAVE GOOD TIMES." BY JANET ELIZABETH LUCE, AGE 15.
(SILVER BADGE.)

tadpole, an' he wiggled too far, an' I fell in. But I was awful hot, an' the water was nice an' cool, an' it on'y came up to my waist, so I stayed in. An' then that funny man came along, an' he sed, 'I tak' you home': an' I said, 'All right.' So I came out an' showed him where I lived, an' he brung me all the way home. Daddy, why did you give him all that money?"

WHEN SCHOOL IS OVER

BY ELEANOR SLATER (AGE 13)

(Gold Badge. Silver Badge won June, 1916)

When school is o'er and work is done,
Then shouts and laughter fill the air,
And swarms of boys, dismissed from class,
Come crowding down the broad oak stair.



"A HEADING FOR JULY." BY MARGARET J. SANDERS, AGE 15
(SILVER BADGE.)

And kindergartners from the school
Will soon come toddling on their way;
While passers-by will linger long
To watch them at their childish play.

Light, dainty footsteps in the hall
Now bring the little girls to mind,
Who're seen emerging from the door
With arms most lovingly entwined.

The grind and toil of school is o'er,
So all are glad this summer day,
And chatter of vacation plans
While wandering on their homeward way.

A few choose yonder wooded hill,
While others plan their summer home
In shady dell, near woodland rill,
Or by the ocean's crested foam.

They bid good-by to all their friends,
And hurry blithely on their way
Rejoicing, for their work is done
And school is o'er for many a day.

THE BRAVE DEED

BY ELIZABETH GRAY (AGE 13)

(Silver Badge)

SLOWLY, step by step in the semi-darkness, climbed our hero. A little heart beat wildly at the thought that perhaps—perhaps in *that* very corner lurked a serpent. Maybe the serpent would shoot out its head and swallow down certain fat little legs! In a cold fear John Henry climbed to the next step; then paused. He had reached the landing.

Tremblingly he remembered the "goblin" that Nurse had told him about. He remembered that she had stated very clearly that the goblin always stole away naughty little boys, and she had given several harrowing instances, too. John Henry's eyes grew big—was something moving in that darkest shadow? THAT WAS

WHERE THE GOBLIN LIVED! And once he had called Nurse a "mean thing"—under his breath, of course; but the goblin knew just everything he even *thought* about!

Then, like a hand reached out to comfort, came Mother's voice from the sitting-room downstairs, "Run along, Sonny."

A daring rush past the goblin den, and Sonny started on the second flight of stairs. But still the goblin!—Perhaps it was following him now to carry him away! That Sunday when he would n't kiss Aunt Jane—he wished now he had!

He ran up the next few steps and slipped and fell, bruising his leg; but he did n't care then. The goblin might get him! Hastily brushing away a—we won't say a tear, just a drop of moisture—from his cheek, he scrambled up the next few steps and across the hall to his nursery, where Nurse was turning down the covers of his bed.

Queerly enough, in the light his fears left him.

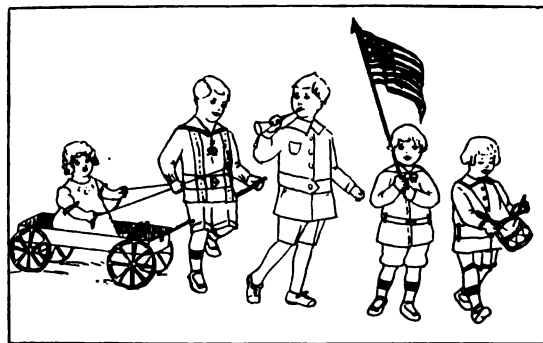
"It was dark on the stairs," he said stanchly, "but I was n't afraid!"

A BRAVE DEED

BY GEORGE GORDON MAHY (AGE 13)

THERE is hardly a story that does not have in it some deed of bravery. Sometimes the knight rescues the fair princess from the ogre's castle; sometimes the general leads his troops onward in the face of deadly fire; sometimes the hero stops the madly dashing horses; but these are not the only kinds of bravery. Sometimes a brave deed is one that shows sacrifice and unselfishness. So it is with this story.

It was a bitterly cold night in Valley Forge. The wind howled through the bare trees. The light of the camp-fire brought out in bold relief that scene of hardship: those cold, half-starved men, gathered round the camp-fire for the little heat it afforded; the gray tents;



"A HEADING FOR JULY." BY N. D. HAGAN, AGE 9
(SILVER BADGE.)

and last of all, the sentinels and pickets out in the cold—brave defenders of their rights.

Through the camp walks the tall general. His brow is furrowed with lines of worry. He gathers the folds of his cloak around him as a cold blast of wind strikes him. He passes a shivering sentinel, turns, looks back, and then strips off his cloak, throws it over the sentinel's shoulders, and before the man can remonstrate he is off in the night. It was just such deeds as this that made that great commander, George Washington, "First in war, first in peace, and first in the hearts of his countrymen."



BY ALICE BIGELOW LEE, AGE 13.



BY MILDRED SHARP, AGE 12.



BY KATHARINE STEBBINS, AGE 11.



BY ROYDON BURKE, AGE 13.



BY MURIEL LANCE, AGE 13.



BY DELIA WOLF, AGE 12.



BY ELIZABETH MCLEAN TIMPSON, AGE 14. (SILVER BADGE.)

"WHERE I HAVE GOOD TIMES."

A BRAVE DEED

BY MARJORIE S. SPRING (AGE 15)

ONCE more Betty seemed to see the shimmering lengths of silk and lace before her—sea-green silk, and silver lace as fine as dew-bespangled cobwebs. And then she buried her head again in that terrible letter.

"Oh, why," she sobbed, "could n't they have waited until after the senior dance!" Those few hope-blasting lines from her younger twin sisters burned themselves into her memory. "Father and Mumsy are so worried about money affairs; and Father has forgotten all about paying for our last term's music lessons! Have n't you a little money you could send us? We do so hate to ask them! It is twenty-five dollars."

Yes, she did have money—twenty-five dollars—carefully saved from her hard-earned summer-clerking sal-

ary. But that was for the new dress for the senior dance.

"I won't give it up!" she said rebelliously, over and over, as a vision of the old, much-made-over brown silk dress came before her eyes. "I can tell them I have no money, and they will never know the difference!"

That settled it for the present, for it was time for a meeting of the "C. C." club, but it did not settle it forever.

That night she dreamed she saw her work-worn little mother bending patiently over the overflowing mending-basket, while she herself was dancing at a party on the broad veranda, and in her new silk dress!

Several days later, when the twins received their morning mail, they found a letter from Betty, their splendid "college" sister, and inclosed was a check for twenty-five dollars.

WHEN SCHOOL IS OVER

BY L. BURTON CRANE, JR. (AGE 15)

(Silver Badge)

SOMETIMES, on a sultry summer's day,
 When the wind just stirs in the old elm-tree,
 And the sun beats down on the fragrant hay,
 And you hear the drone of the lazy bee;
 When the green grass waves to the passing breeze
 And a wee stray lamb of a cloud floats by—
 Then I love to lie 'neath the apple-trees
 With the world of the grass in my lazy eye.



"A HEADING FOR JULY." BY HILDA HAHN, AGE 17.
 (HONOR MEMBER.)

Then the bee sails by in his droning flight,
 And the ant climbs up to the airy bowers
 And bears, as the sum of his tiny might,
 His spoil in the seed of the wilting flowers.
 Oh, I 'd lie all day in the rich, deep shade,
 With the fat old bee in the fragrant clover,
 And watch with the even the landscape fade,
 And glory at last that my school is over.

A BRAVE DEED

BY EMILY WITHROW (AGE 12)

MARY ELIZA TOMPKINS rushed in breathless one noon
 to her mother, who was in the kitchen washing.

"Oh, Mother!" she cried. "Have you heard about
 Tony Ruffino?"

Giving her mother no time to answer, she went on:

"Just before we were to come home this morning we
 heard the fire-alarm, and we thought it was fire-drill;
 so we were starting to drill, when the room filled up
 with smoke.

"Well, Harry Most was on the aisle near the door,
 and he started to run out, when Tony Ruffino—and
 he's lots smaller, too—stood right up by his seat,—he
 sits by the door,—and he knocked Harry down, and
 Harry began to cry. And Tony said, 'Girls out first!'

"The other boys had started, too, but Tony made
 them all sit down.

"We girls got out, and all the boys except Tony were
 out, and the firemen had to go up and get him. And,
 Mother, he was so burned that the doctor said he would
 have to be out of school a long time," the little girl
 ended.

Tony was not at school for a long time; but when
 he did come back, he was cheered by all the classes.

A BRAVE DEED

(A true story)

BY TUDOR GAIRDNER (AGE 14)

(Silver Badge)

My cousin is captain of a Canadian A. M. C. in France.
 Recently he was in charge of a dressing-station near
 Ypres. The place was being severely bombarded by the
 Germans. Around the buildings was a large moat, or
 ditch, crossed by a single bridge. My cousin was su-
 pervising the carrying off of the wounded. One of his
 stretcher-bearers was suddenly struck by a shell and
 terribly wounded. Without a moment's hesitation he
 ran out into the bullet-swept lines and carried the
 wounded man back to safety.

The dressing-station was now so badly shelled that it
 had to be vacated. Nearly all the men were swimming
 across the moat to safety, as the bridge was under too
 heavy a fire. One of the officers was dangerously
 wounded. My cousin carried him to a stable; but was
 unable to carry him farther. Here they remained, with
 shells tearing down the building. Help finally came,
 and my cousin and another man swam with the
 wounded officer across the moat, my cousin shielding
 him all the time under terrific fire with his own body.

For this brave deed the king of England decorated
 him with the Victoria Cross.



BY MARGARET OVERINGTON, AGE 11.
 (SILVER BADGE.)



BY GERTRUDE A. CUSHING, AGE 15.
 (SILVER BADGE.)



BY GRACE BRADLEY, AGE 15.
 (SILVER BADGE.)

"WHERE I HAVE GOOD TIMES."

WHEN SCHOOL IS OVER

BY ELEANOR JOHNSON (AGE 17)

(Honor Member)

My childhood's school is over, and I turn
 To bid the LEAGUE good-by with fond regret,—
 To say that I have tried to do my best.
 Your many kindnesses I'll not forget.

For twelve long years I've written for the LEAGUE,
 And never missed a month, in all that time,
 To send a contribution in to you
 Since I was six, and wrote you my first rhyme.

And I have always aimed to do my best;
 Have watched the clever members do their work;
 And now I hope some day a verse of mine
 Will in the pages of St. NICHOLAS lurk.

So now I step across to grown-up shores
 To greet the land of mystery unseen.
 Good-by, dear LEAGUE! Good-by, League Members, too!
 Good-by! To-morrow I shall be eighteen.



"WHERE I HAVE GOOD TIMES." BY CURZON TAYLOR, AGE 11.

A BRAVE DEED

(A true story)

BY JUSTINE HARTLEY (AGE 15)

(Silver Badge)

ONE morning my father came in to announce that he was going to change the buffalo to another pasture, and sent my brother and sister to the barn to mount horses. I was stationed in a lane south and my mother was stationed in a lane north, so that we might prevent their getting away.

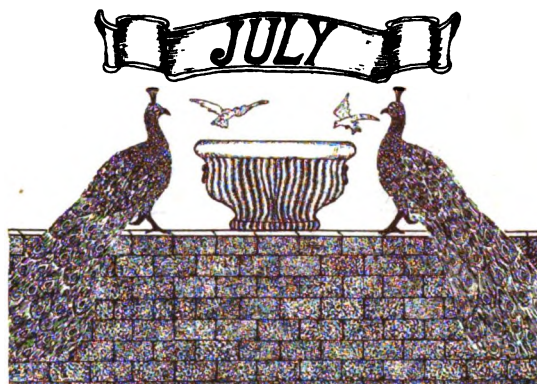
At last they were driven out of the pasture and started in my direction. You may know I was frightened. Luckily they stopped, and, after gazing at me a few moments, turned and galloped away. Not wanting to get them frightened, my sister and brother on horseback stayed some distance behind, but both were on their guard.

The buffalo started toward the other pasture, but when near the gate they wheeled and started down another lane on a slow gallop. This lane was half a mile long and led out to the main road. We knew that, if the buffalo reached the end, they might cause trouble.

My sister, seeing the coming danger, touched her horse with the whip and away she went. Not into the lane, but across the fence in the pasture, where there are six elk. The elk, had they taken the notion to investigate affairs just then, would probably have made things rather dangerous. But they paid no attention

whatever. Across the pasture she raced, and we, who stood behind and looked on, wondered what would become of her. But she did not seem to realize the danger she was in, as the horse ran like a greyhound.

When she returned, she told us what had happened in a matter-of-fact way, as if she had done nothing



"A HEADING FOR JULY." BY JOHN ASHER, AGE 13.

unusual. It seems that when she reached the end of the lane, she dismounted, opened the gate and went through, then mounted her horse and headed the buffalo before they were three fourths of the way up the lane. She then brought them back and turned them into the pasture.

This is what I call a brave deed.

A BRAVE DEED

BY HELEN PALMER (AGE 15)

"MAN overboard!"

The strident cry echoed through the silent tropical night, and was immediately followed by the clang of the engine-room bell and the shuddering and straining of the ship as the powerful engines were reversed. There was a hurry of footsteps on the deck, and then

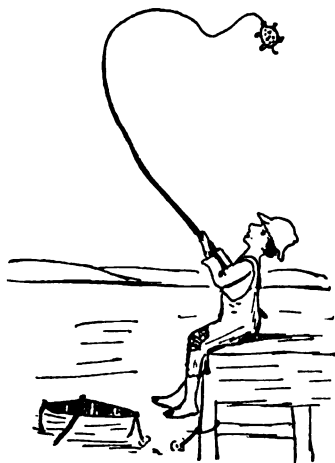


"WHERE I HAVE GOOD TIMES." BY JOHN YOUNG, AGE 13.

came the sharp command, "Lower away there!" Those awakened by the turmoil heard the creak of the ropes in the davit-pulleys and rushed on deck.

At the starboard rail stood a group of seamen talking in suppressed voices, and off to the left could be seen, in the shining pathway of reflected moon-rays, the head of the swimming sailor many rods astern—and

nearer, to the right, a thing that froze the spectators with horror. A sharp triangular fin, cutting the broad swell in the liner's wake, was moving rapidly toward



"A FISHERMAN'S LUCK." BY JOY PAINE,
AGE 13. (SILVER BADGE.)

the struggling man. The huge, man-eating shark, that had been following them for days, had sighted his prey, and to the watchers' strained attention the rescuer's boat seemed hardly moving.

Suddenly there was a slight commotion on the lower deck, and then the dark form of one of the Hawaiian stokers launched itself, straight as an arrow, toward the huge fish. The moonlight gleamed for an instant on the long knife between his teeth as he shot through the air and disappeared within two yards of his formidable enemy. A breathless silence hung over the ship.

For a moment nothing happened. Then the shark paused and, with a convulsive effort, sprang almost clear of the water and fell back on his side, revealing the jagged rent from which the blood was pouring.

A moment later, the hero's head appeared above the crimsoned water, and a ragged cheer burst from the crew as he was hauled aboard.

A BRAVE DEED

BY FRANCES GILLMOR (AGE 12)

(Silver Badge)

SEVERAL years ago strange happenings disturbed the peace of our family. But in the face of dire danger my father faced death at the hands of a marauder.

A clear, trickling brook pursued its winding course past our homestead, and it was our custom to stand a creamer of milk in its icy embrace, shaded by low-hanging alders. Just below this point the brook met the salt water of the bay, and it was easy for a thief to creep silently up the shore, steal softly along the brook, and, after emptying the creamer, return unsuspected to his home.

One night my father in desperation decided that, if necessary, he would bleed and die in "freedom's cause." Armed with a loaded revolver, he started for the brook to spend the night watching for the thief.

The shadows swept down. The moon rose. And still the crouching figure of my father was seen standing silently in the bushes. The stars came out, and still my father waited in the darkness for the marauder.

The first gray streaks of dawn appeared, and, tired of his long vigil, Father stepped to the edge of the brook

and gasped with astonishment. The retreating spring tide had overturned the creamer, and the water, creamy white, was rushing onward to the bay.

Now, Father always squirms uneasily when thieves or spring tides are mentioned. When any member of the family examines an old revolver and laughingly speaks of the time that it so bravely defended our creamer, Father takes his pipe and seeks solitude in the garden.

WHEN SCHOOL IS OVER

BY MARTHA HODGSON (AGE 10)

(Silver Badge)

WHEN school is over, I'm so glad!
'Cause then I go to my dear dad.
He takes me through the woods so grand;
There we go walking hand in hand.
Little wrens and chickadees
Call at us from all the trees.
Tanagers with scarlet coats;
Humming-birds with ruby throats;
Squirrels, beavers, mice, and mink—
Every beastie you could think.
Snakes and froggies, tadpoles, too,
From the waters peep at you.
Violets, bloodroots, pink sea-foam
We see as through the woods we roam.
Daisies, roses, milkweed white,
All the flowers come in sight.



"WHERE I HAVE GOOD TIMES." BY AGNES JANEWAY, AGE 11.
(SILVER BADGE.)

THE ROLL OF HONOR

- No. 1. A list of those whose work would have been used had space permitted.
No. 2. A list of those whose work entitles them to encouragement.

PROSE, 1

Diana H. S.	Jeannette K. Finnemore	Marguerite Hummert
Betty Burke	Fearn Cabell	Catherine Snyder
Robert Mitchell	Viola S. Wertheim	Mary E. Jacobsen
Jack Palmer	Frances Hyde	Helena Gilgan
Emeline La Mont	Cornwall Spencer	Phyllis K. Kett
Lolita Stubblefield	Ruth Brindze	Margaret S. Meredith
Florence W. Nightingale	Reba Strickland	Dorothy Marshall
Sally Sage	Bernard Pineus	Earle W. Smith
Katherine A. Adams	Pauline V. Law	Alan C. Collins
Muriel Thomas	Grace P. Asserson	Frances Nesbit
Nelsie English	Bertha Bates	Lorraine Erdman
Rosalyn Margolies	Beatrice E. Wright	
Marian Frankenhild	Portia Goulder	
John I. Cook	Neva Creighton	
Rachel Feldman	Alice Martenis	
Emilia Belknap	Esther L. Cottingham	
	Cleta Johnson	
	Mary F. Williams	
	Vera A. Fowler	
	Florence Markward	
	Henriette Sclling	
	Johanna F. Betz	

VERSE, 1

Mary S. Benson
Sarah F. Borock
Yvonne Smith
H. Barden Allison
Virginia C. Hamilton
Anna Lincoln
Jessie M. Thompson
Mary E. Waterman

Edith Vernon M. Simonds
George Regner
May E. Wishart
Edith Bartow
Holly Wilcox
Carolina Borst
Charlotte D. Vanderlip
Rosalind O. English
Edith Fletcher
Jane E. Curtis

DRAWINGS, 1

Eleanor F. Byrnes
Kathryn Wright
Alta I. Davis
Lucie C. Holt
Lucy F. Rogers
Philip Rawson
George A. Duerr
Harriett Fargo
Ernest Aydelott
Genevieve Bartlett

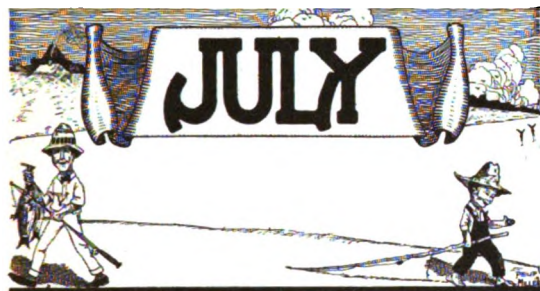
Adaline E. Wheeler
Mary Lytle
Consuelo Bates
Violet Reitz
Mabel Drury
Carolyn Olmsted
Lucy Jeffrey
Miriam P. Thompson
Martha Clapp
Dorothy Barber
Olive E. Bruckheimer

Elizabeth Hamburger
Louis Burt
Elizabeth O'Kane
Mary Lockett
Evelyn Ruff
Janet G. Moore
Sterling Dow
Dorothy N. Teulon
Anita Peck

PUZZLES, 2

Hazel Wilcox
Katherine Strong
Theresa S. Brodo
Donald G. McCloud
Virginia Sargent
Anna Brooks
Giacinda Savins
Avis Edward

Miriam Arrowsmith
Edward R. Stabler
Barbara Greer
Francis Lamb
Gertrude Loveland
M. C. Stewart
William C. Roe
Evelyn Robbins
Frederick Stallings
May Krauss



"A FISHERMAN'S LUCK." BY PHILIP MILLER, AGE 17.
(SILVER BADGE.)

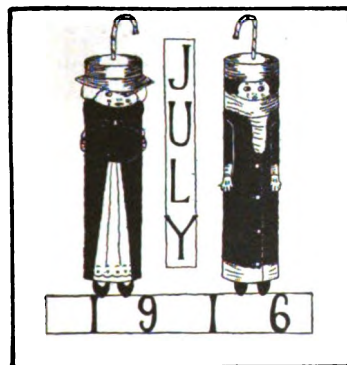
Sylvia A. Blascoer
Lillian Miller
Tom S. Kittrell
Beatrice L. Berry
Harriet T. Parsons
Susannah S. Platt
Caro Fitz Simons
Emily Stevenson
Sterling North
Olivia Moyer
Mary Guild
Elizabeth Pope
Mary Gulland
Leonore Gidding
Oscar Kaplan
Saveria A. Greco
Stephen Cheney
Margaret G. C. Boulbee

Charlotte Becker
Paul Detlefsen
Jack Cook
Henry J. Meloy
Eather Rice
Henry Stowell
Evelyn Rosenthal
Margaret J. Harper
Samuel Cherry
Elizabeth Mumford
Katharine Winchester
Christina Phelps
Julia D. Mann
Joe Berger
Evelyn Gaylor
Thomas Laughlin
Leane Gale, Jr.
Arthur McClellan

Alice L. Strobel
Mary L. Holway
Francis Gilmore
Gertrude M. Levey
Esther S. Ely
Ruth Earle
Sarah W. McLean
John L. Blake
Anna S. Chase
Frances Brown
Marion Whalin
Margaret B. Berger
Margaret Leal
Dudley P. Cotton
Charles E. Lytle, Jr.
Bertha Hitchcock
Eleanor Hillyer

PUZZLES, 1

Jean F. Black
Christine L. Phelps
A. Drummond Jones
Katharine Cleveland
Kenneth Burdick
Edith Brooks
William Penn
Martha Hammond
Francis W. Bronson
Dorothy S. Dean
Eleanor Lyser
Barbara Blake
Malvina Holcombe
Hubert Barentzen
Florence E. Wallace
James Valentine
Grace E. Lustig
James C. Perkins
Hazel Wilcox
Mary Osborne
Charles Matcham
Ruth Schueler
Frances Snyder
Eleanor Marsh
Betty Upham
Mildred Williams
Pauline A. Coburn
Lucile B. Levy
Dorothy S. Dinsmore
Phyllis Lieghley
Robert Sparks
Anna Eastman
Angeline Garrison
Guinevere Z. Robinson
Clarence de Witt Rogers, Jr.
S. MacGlashan
Morton Milner
Dorothy C. Hess



"A HEADING FOR JULY." BY HELEN
FABYAN BINGHAM, AGE 12.
(SILVER BADGE.)

Mildred F. William
Betty Murphy
Hollins McK. Steele
Ellen H. Newell
Margaret H. Sims
Eleanor M. Gantz
Barbara Prosser
Edward Allen
Marie Mirvis
Agnes Packard
Margaret Hinkley
Albert Stutzenberger

PHOTOGRAPHS, 1

Irma A. Wallace
Mary I. Leonard
John Cosgrove
Norton Leeds
Lucie Bell
Claudia Overington
Max Hebgren
Mary A. Talley
Elizabeth A. Manning
Margaret L. Heckle

PRIZE COMPETITION No. 201

THE ST. NICHOLAS LEAGUE awards gold and silver badges each month for the best original poems, stories, drawings, photographs, puzzles, and puzzle answers. Also, occasionally, cash prizes to Honor Members, when the contribution printed is of unusual merit.

Competition No. 201 will close July 24 (for foreign members July 30). Prize announcements will be made and the selected contributions published in ST. NICHOLAS for November.

Verse. To contain not more than twenty-four lines. Subject, "The Sunlit Hills."

Prose. Essay or story of not more than three hundred words. Subject, "The Message."

Photograph. Any size, mounted or unmounted; no blue-prints or negatives. Subject, "Reflections," or "A Bit of Life."

Drawing. India ink, very black writing-ink, or wash. Subject, "Caught!" or a Heading for November.

Puzzle. Any sort, but must be accompanied by the answer in full, and must be indorsed.

Puzzle Answers. Best, neatest, and most complete set of answers to puzzles in this issue of ST. NICHOLAS. Must be indorsed and must be addressed as explained on the first page of THE RIDDLE-BOX.

Wild Creature Photography. To encourage the pursuing of game with a camera instead of with a gun. The prizes in the "Wild Creature Photography" competition shall be in four classes, as follows: *Prize, Class A*, a gold badge and three dollars. *Prize, Class B*, a gold badge and one dollar. *Prize, Class C*, a gold badge. *Prize, Class D*, a silver badge. But prize-winners in this competition (as in all the other competitions) will not receive a second gold or silver badge. Photographs must not be of "protected" game, as in zoological gardens or game reservations. Contributors must state in a few words where and under what circumstances the photograph was taken.

No unused contribution can be returned unless it is accompanied by a self-addressed and stamped envelop of the proper size to hold the manuscript, drawing, or photograph.

RULES

ANY reader of ST. NICHOLAS, whether a subscriber or not, is entitled to League membership, and a League badge and leaflet, which will be sent free. No League member who has reached the age of eighteen years may compete.

Every contribution, of whatever kind, must bear the name, age, and address of the sender, and be indorsed as "original" by parent, teacher, or guardian, who must be convinced beyond doubt—and must state in writing—that the contribution is not copied, but wholly the work and idea of the sender. If prose, the number of words should also be added. These notes must not be on a separate sheet, but on the contribution itself—if manuscript, on the upper margin; if a picture, on the margin or back. Write or draw on one side of the paper only. A contributor may send but one contribution a month—not one of each kind, but one only; this, however, does not include the "advertising competition" (see advertising pages) or "Answers to Puzzles."

Address: The St. Nicholas League,
353 Fourth Avenue, New York.

THE LETTER-BOX

THE notable successes in the literary and art world achieved by graduates of the ST. NICHOLAS LEAGUE have received frequent mention in the introductions to that department. This month we are peculiarly fortunate in being able to give to our readers in the pages of the magazine itself an excellent and really important contribution by one who, for several years, was an Honor Member of THE LEAGUE. The article on pages 840-1, of this number, entitled "A Summer Life-saving Club," came to us with the following letter:

DEAR ST. NICHOLAS: About eight years ago I was an ardent member of the ST. NICHOLAS LEAGUE, and took the badges and prizes you offered. Since then I have been writing children's stories for a syndicate, and this summer two volumes of my work are to be published. So you see what a help THE LEAGUE was! I have written an article on a swimming-club that was started last year in Cooperstown, New York, where I spend the summers. It was a decidedly helpful thing, and I thought boys and even girls might care to organize such a summer club

Very sincerely yours,
MARY GRAHAM BONNER
(An Old LEAGUE Member).

Miss Bonner's article sets forth a project that is well worth the earnest consideration of all our older boys and girls, and we hope they will not fail to bring it to the attention of their parents and teachers. And while heartily commending the information, suggestions, and advice which it conveys, we wish to express also our gratitude to its young author, and to assure her that the magazine takes an especial pride in the progress of all former members of THE LEAGUE, and is an ardent well-wisher for their continued success.

EVANSTON, ILL.

DEAR ST. NICHOLAS: I am waiting so anxiously for the next copy of you. I am so disappointed when I see that hated old "To be continued" staring me in the face! "The Sapphire Signet" is fine. I enjoyed "Saved by a Camera," too.

I have taken you for a year, and hope to have you always for my children and grandchildren and great-grandchildren to read. I hope to have you bound, as I think you are the best magazine I have read.

Wishing you a great success, I remain

Your reader,

MARIAN WORSTALL (age 11).

WILLIAMSPORT, PA.

DEAR ST. NICHOLAS: I am a missionary's daughter and have lived in Japan all my life until I came to America for my education last spring.

One of my greatest pleasures in Japan was your monthly arrival. I had two sisters as eager to read you as I, and so there usually was a squabble before the matter was settled as to who would have you first.

In Japan my home was down in the southern part, on the Inland Sea. On our arrival, crowds of Japanese gathered around us, wondering who these people were. Especially did they look at my mother. What could be

that curious thing she wore upon her head? A hat? Never! In Japan women do not wear hats. Could it be a man? No, that was impossible! And so they stared,—women, men, little urchins, crowing babies, old gray grandfathers and grandmothers, barking dogs, and howling cats.

The Japanese are very curious. If I were to take a walk down town, from the first instant I stepped out of the gate, a crowd of children would gather and follow me all the way, jabbering to one another, while they clattered along in their noisy clogs. I would walk down the middle of the streets, feeling perfectly safe, because there are no automobiles in the smaller towns. Besides, there are no sidewalks, so why not the middle of the street as well as the side?

Being attracted by a pretty trinket, I might stop and inquire the price. The shopkeeper would bow profoundly and reply, "Honorable lady, the price is fifty sen." Fifty sen is worth twenty-five cents in our money, so the Japanese sen is half a cent. The Japanese rin is worth a twentieth of a cent, and their yen bill is equal to our half dollar.

If I buy the trinket, the clerk will wrap it up in newspaper, and I will accept the untidy package without a thought of protesting.

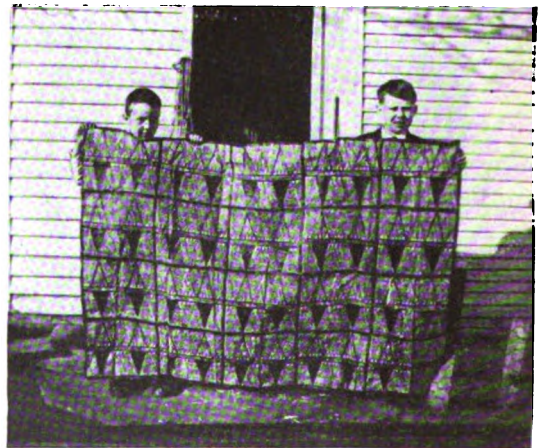
Now that I am here, I laugh at the recollections of the strange things I did in Japan, and marvel how I could do them; but, of course, since I had always been there, they did not strike me as unusual until I came back home. I could write for hours on quaint, queer Japan

Hoping you will have a long and successful career, I remain

Your affectionate reader,
FRANCES A. BROKAW (age 13).

IOWA CITY, IA.

DEAR ST. NICHOLAS: I have a correspondent in Samoa who also reads ST. NICHOLAS. He recently sent me a

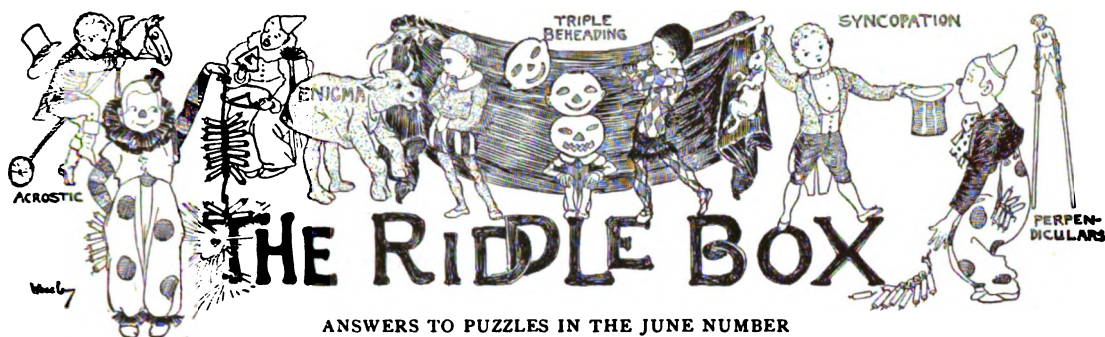


tapa-cloth. I thought your readers would like to see a picture of it.

It is made of the inner bark of a tree, pounded together and dyed with native dyes.

Yours truly,

ROBERT KING.



ANSWERS TO PUZZLES IN THE JUNE NUMBER

AN "ANIMAL" DIAGONAL. Beaver. Cross-words: 1. Baboon. 2. Merino. 3. Quagga. 4. Beaver. 5. Badger. 6. Setter.

DIVIDED WORDS. George Eliot. 1. Galloon. 2. Earnest. 3. Opaline. 4. Racking. 5. Germane. 6. Epicure. 7. Erasure. 8. Lackey. 9. Ideally. 10. Overall. 11. Tactile.

ILLUSTRATED PRIMAL ACROSTIC. Peter the Great. 1. Peach. 2. Eagle. 3. Table. 4. Eight. 5. Rifle. 6. Twine. 7. Heron. 8. Ephod. 9. Goose. 10. Kings. 11. Egret. 12. Acorn. 13. Three.

NOVEL ACROSTIC. Initials, Minneapolis, fourth row, Tallahassee. Cross-words: 1. Martyr. 2. Ideals. 3. Naples. 4. Nellie. 5. Edward. 6. Anthem. 7. Palate. 8. Outset. 9. Lapsed. 10. Idlers. 11. Scheme.

SOLVERS wishing to compete for prizes must give answers in full, following the plan of the above-printed answers to puzzles.

TO OUR PUZZLERS: Answers to be acknowledged in the magazine must be received not later than the 24th of each month, and should be addressed to St. NICHOLAS Riddle-box, care of THE CENTURY CO., 353 Fourth Avenue, New York City.

ANSWERS TO ALL THE PUZZLES IN THE APRIL NUMBER were received before April 24 from Vivian Sauvage—Ellen Windsor Lothrop—Margaret McEntee—Helen H. McIver—"Allil and Adi."

ANSWERS TO PUZZLES IN THE APRIL NUMBER were received before April 24 from Katharine Howard White, 10—Sally Burrage, 10—Constance Miller, 10—Arthur Poulin, 10—John P. Helmick, 10—Florence S. Carter, 10—Nancy Hough, 9—Angeline Garrison, 9—Rosalie L. Smyth, 9—Winifred S. Walz, 9—Claire A. Hepner, 9—Florence Helwig, 8—Helen Adda Vance, 8—Helen A. Moulton, 8—"S. Anna's Girls," 7—Dorothy Berrall, 7—Florence Noble, 7—Edith M. Heyn, 7—Phyllis Young, 6—Whitney Ashbridge, 5—Anna S. Lerner, 4—Alberta Mooney, 3—Marjorie M. Lounsbury, 3—Loraine Leeson, 3—Dorothy Schiff, 3—Louise Durand, 3—E. Stackpole, 2—A. L. Doren, 2—M. Milsner, 2—A. L. Meader, 2—E. Hugo, 2—J. L. Norie, Jr., 2—E. and M. de Arostegui, 2—M. Hodder, 1—E. Morrow, 1—C. A. Dize, 1—M. Durand, 1—T. S. Brods, 1—F. Koye, 1—M. Wickwire, 1—M. E. Turner, 1—E. De Voe, 1—L. H. Brownlee, 1—E. Craig, 1—V. Buell, 1—M. K. Holcombe, 1—K. Broughall, 1—E. C. Behring, 1—J. Brand, 1—E. S. Small, 1—E. Lyser, 1—G. M. Laimbeer, 1—V. Wyckoff, 1.

HIDDEN WORD-SQUARE

SELECT a letter from each word in the following sentences. When they have been rightly guessed they will make words which answer to the following definitions and form a word-square.

1. A necessity to life. 2. To dwell. 3. To dye. 4. Sharp. 5. Shril.

1. William and Hubert are brothers.
2. Was Albert in London yesterday?
3. There is important bargaining done.
4. James had eight baskets made.
5. Great games were played yesterday.

HUBERT BARENTZEN (age 16), *Honor Member*.

DOUBLE DIAMOND

READING ACROSS: 1. In cable. 2. An exclamation of contempt. 3. Stories. 4. Pertaining to the sides. 5. To confuse. 6. A luminous orb. 7. In cable.

READING DOWNWARD: 1. In cable. 2. A loose appendage, such as the flap of a shoe fastened with a buckle. 3. Lessens. 4. Deadly. 5. A wading bird having a long, sharp bill. 6. To sink in the middle because of weight. 7. In cable.

WILLIAM PENN (age 13), *League Member*.

DOUBLE BEHEADINGS AND DOUBLE CURTAILINGS

1. DOUBLY behead and doubly curtail a trap, rearrange the three remaining letters, and make astern.

2. Doubly behead and doubly curtail a boat-race, rearrange the remaining letters, and make a game.

DIAGONAL. Cabot. Cross-words: 1. Coast. 2. Paint. 3. Labor. 4. Vapor. 5. Might.—CHARADE. Out-line.

DOUBLE BEHEADINGS. Austria-Hungary. 1. Al-arms. 2. Ca-used. 3. As-sign. 4. Sa-tire. 5. Pa-rent. 6. Ab-ides. 7. Ar-able. 8. Ad-here. 9. Ch-urns. 10. Re-news. 11. Be-gone. 12. Pl-ants. 13. Th-rust. 14. Ba-yard.

A DWINDLING WORD. F-l-a-s-h.

CONNECTED SQUARES. I. 1. Scare. 2. Caper. 3. Apple. 4. Relic. 5. Erect. II. 1. Glint. 2. Liner. 3. Inlay. 4. Nears. 5. Tryst. III. 1. Tacit. 2. Abode. 3. Copia. 4. Idiom. 5. Teams. IV. 1. Cadet. 2. Adore. 3. Doves. 4. Erect. 5. Testy. V. 1. Stage. 2. Talon. 3. Alert. 4. Gorge. 5. Enter.

3. Doubly behead and doubly curtail unfurls, rearrange the remaining letters, and make a common verb.

4. Doubly behead and doubly curtail a very clear kind of glass, rearrange the remaining letters, and make an inclosure for pigs.

5. Doubly behead and doubly curtail a sudden flood, rearrange the remaining letters, and make a pronoun.

6. Doubly behead and doubly curtail a big lamp, rearrange the remaining letters, and make a number.

7. Doubly behead and doubly curtail a communication sent from one to another, rearrange the remaining letters, and make a beast of burden.

8. Doubly behead and doubly curtail bigger, rearrange the remaining letters, and make consumed.

9. Doubly behead and doubly curtail a man-of-war's boat, rearrange the remaining letters, and make a feminine name.

10. Doubly behead and doubly curtail triumph, rearrange the remaining letters, and make a small bed.

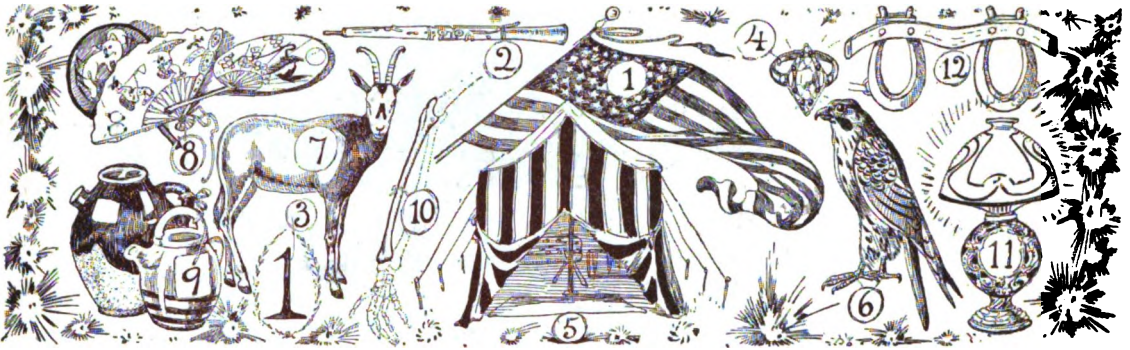
11. Doubly behead and doubly curtail one who steers, rearrange the remaining letters, and make before.

12. Doubly behead and doubly curtail defrauded, rearrange the remaining letters, and make devoured.

13. Doubly behead and doubly curtail in case, rearrange the remaining letters, and make a very common little word.

When the thirteen three-letter words have been rightly guessed and written one below another, the middle row of letters, reading downward, will spell a place that many intrepid explorers have vainly tried to reach.

ELIZABETH T. CHANNING (age 14), *League Member*.



ILLUSTRATED PRIMAL ACROSTIC

ALL of the twelve objects shown in the above picture may be described by words of the same length. When rightly guessed and written one below another, the initial letters will spell three very common little words.

ZIGZAG

ALL the words described contain the same number of letters. When rightly guessed and written one below another, the zigzag, from the upper, left-hand letter to the lower, left-hand letter will spell a favorite study.

CROSS-WORDS: 1. Pastimes. 2. A criminal. 3. A small fish. 4. Bulky. 5. Having power to grind. 6. A collection of maps. 7. A common fruit. 8. A setback. 9. Immature.

CARL GUTTZEIT (age 13), *League Member*.

CHANGED HEADS

EXAMPLE: I am a sound. Change my head and I become, in turn, a hard substance, solitary, the fruit of the pine, and to sharpen. Answer, Tone, bone, lone, cone, hone.

I. I am part of a horse. Change my head and I become, in turn, a piece of glass, a shady road, a staff, any cause of ruin, a temple, sensible, to decrease, a feminine name, and an inhabitant of a European country.

II. I am a color. Change my head and I become, in turn, a cake, merriment, a weapon, a recluse, to hasten, a play on words, a luminary and a measure.

III. I am a comrade. Change my head and I become, in turn, doom, a specified time, an entrance, to detest, tardy, the head, ratio, and a feminine name.

BARBARA BLAKE (age 10), *League Member*.

TRANSPOSITIONS

(*Silver Badge*, St. Nicholas League Competition)

EXAMPLE: Transpose the hair on the neck of a horse, and make a title. Answer, mane, name.

1. Transpose a piece of glass, and make part of the neck. 2. Transpose an emblem of authority, and make the highest point. 3. Transpose tardy, and make a Chinese coin. 4. Transpose a feminine name, and make to cure. 5. Transpose a certain fish and make a female relative. 6. Transpose a sound, and make a short letter. 7. Transpose lateral, and make certain days in the Roman calendar. 8. Transpose at hand, and make to acquire by labor. 9. Transpose a kind of cabbage, and make a body of water. 10. Transpose a small animal, and make to perceive by the ear. 11. Transpose a feminine name, and make a large body of men. 12. Transpose the feet of an animal having claws, and make a stinging insect. 13. Transpose warmth, and make the tea plant.

14. Transpose to engage, and make an inheritor. 15. Transpose a geometrical figure, and make at one time. 16. Transpose a musical composition for three performers, and make an uproar. 17. Transpose fastened together with needle and thread, and make information. 18. Transpose wicked, and make sinful.

When the foregoing words have been rightly guessed and transposed, the initials of the new words will spell the name of a distinguished American who was born on the Fourth of July.

MARGUERITE A. HARRIS (age 13).

CROSS-WORD ENIGMA

My first is in Bryant, but not in Rossetti;
My second is in Rossetti, but not in Milton;
My third is in Milton, but not in Whitman;
My fourth is in Whitman, but not in Kingsley;
My fifth is in Kingsley, but not in Whittier;
My sixth is in Whittier, but not in Stevenson;
My seventh is in Stevenson, but not in Tagore;
My eighth is in Tagore, but not in Shakspeare.
My whole is a well-known poet.

BETTY GILMAN (age 10), *League Member*.

CONNECTED SQUARES

(*Silver Badge*, St. Nicholas League Competition)

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I. UPPER, LEFT-HAND SQUARE: 1. To revolt. 2. Flushed with success. 3. To lave. 4. Moral. 5. An old name for a physician.

II. UPPER, RIGHT-HAND SQUARE: 1. To move suddenly. 2. A small drum. 3. Overhead. 4. Wanders. 5. A lock of hair.

III. CENTRAL SQUARE: 1. Courage. 2. To record. 3. To expiate. 4. Tears. 5. A lock of hair.

IV. LOWER, LEFT-HAND SQUARE: 1. Inactive. 2. At no time. 3. To elude. 4. A defensive work. 5. Tendency.

V. LOWER, RIGHT-HAND SQUARE: 1. An official mark. 2. A spasm of pain. 3. A place of public contest. 4. Members of a certain religious order. 5. A vegetable.

MARGARET S. ANDERSON (age 16).

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The Century Co. and its editors receive manuscripts and art material, submitted for publication, only on the understanding that they shall not be responsible for loss or injury thereto while in their possession or in transit. Copies of manuscripts should be retained by the authors.

In the United States and Canada, the price of THE ST. NICHOLAS MAGAZINE is \$3.00 a year in advance, or 25 cents a single copy; the subscription price elsewhere throughout the world is \$3.60 (the regular price of \$3.00 plus the foreign postage, 60 cents). Foreign subscriptions will be received in English money at 14 shillings, 6 pence, in French money 18 francs, in German money 14 marks, 50 pfennigs, covering postage. We request that remittances be by money order, bank check, draft, or registered letter. All subscriptions will be filled from the New York office. The Century Co. reserves the right to suspend any subscription taken contrary to its selling terms, and to refund the unexpired credit.

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ST. NICHOLAS *for* SEPTEMBER

"CURIOUS FIRES" - - - - - *by Charles T. Hill*

Some of the strange and spectacular situations the fire-fighting force have had to meet; by the author of the popular book, "Fighting a Fire." Remarkable photographs.

"ANN ISLAND" - - - - - *by Mary Wells*

What would you do with an island if you were presented with one as a Christmas gift? It will delight you to hear what Ann did with hers. Pictures by Relyea.

"PLAYERS AND THEIR CORRECT POSITIONS" - *by Billy Evans*

The well-known umpire of the American League explains the baseball manager's problem of fitting the player to the position. Many anecdotes about famous heroes of the diamond.

"SPOT, WHO BROKE THE MASCOT'S LAW" - *by Carolyn S. Bailey*

The true story of a dog, the mascot of a fire-truck company, who knowingly broke the rules but succeeded thereby in saving the life of his master, the company's captain.

"LAWN-TENNIS FOR SCHOOL-BOYS" - - *by J. Parmly Paret*

The second and concluding article by this well-known tennis player and writer, dealing with the "backhand stroke" and "volleying and serving."

"FIGHTING WATER WITH CEMENT" - - *by A. Russell Bond*

One of the most thrilling chapters of "On the Battle-front of Engineering," by the Managing Editor of "The Scientific American," dealing with a task that was crowned with victory after many years of struggle.

"THE BOYS' LIFE OF MARK TWAIN" - *by Albert Bigelow Paine*

A particularly inspiring instalment of this favorite serial, dealing with the great humorist's triumphant welcome back to America, and how he revisited as one of the most famous men in the world the scenes of his "barefoot" boyhood.

Etc., Etc., Etc.

Why not join the St. Nicholas family now? Use this coupon to get in, if you are not already a member.

THE CENTURY CO., 353 Fourth Avenue, New York City.

Gentlemen: Please find enclosed \$3, for which send **ST. NICHOLAS** for one year, beginning with the September number, to

Name.....

Address.....

(St. N.—8-10)



“‘LITTLE MERRY SMITH,’ HE SAID, ‘YOU’RE A WONDER!’” (SEE PAGE 873.)

MAY 25 1939

ST. NICHOLAS

VOL. XLIII

AUGUST, 1916

No. 10

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THE LITTLE PIPER

BY ELIZA DANA WEIGLE

I

WHEN all adown the garden,
And out across the wood,
The merry cricket tunes his harp
To blithe and frolic mood;
Plays up the song of gladness,
The tune the young heart knows—
The waving of the rushes,
The daffodil that blows,
The yellow of the cowslip,
The blue forget-me-not,
The feathery St.-John's-wort
That plumes each barren spot,
The waxing of the clover,
The buxom Bouncing-Bet,
The sober little bonnet
Of Quaker mignonette,
The nodding of the cardinal,
The flash of dragon-fly,
The poppy's drowsy message
Where siren shadows lie,
The gossamer Queen Anne's-lace,
The lowly meadow-rue,
And over all, the soft expanse
Of heaven's softest blue,—

You may know this little piper
Would give us holiday;
For the goddess of the summer
Shall shortly pass this way.

II

When all adown the garden,
And over field and wood,
The cricket strings his sober lute
To low and minor mood,
Plays out the song of changes,
The tune the old heart knows—
The rustle of the grasses,
The thistledown that blows,
The silver of the birches,
The gold of maple-leaf,
The tremble in the robin's throat
That tells his time is brief,
The whispering of the wheat-fields,
The sighing of the corn,
The frosty whistle of the quail
Across the silent morn,
The quiet stretches of the wood,
No sunlight sifting through,
And over all, the still expanse
Of heaven's chilly blue,—

This little follower of Pan
At touch of evening gray,
With the passing of the summer,
Would lay his reeds away.



MERRY'S CASE by CHARLOTTE SUMNER

A WATCHED road can be as hope-deferring as a watched pot. Merry jumped down from the horse-block and began to hunt for four-leaf clovers. It might hurry up the postman.

"One leaf is for faith,
And one is for hope,"

she sang as she raked little clumps of clover with her fingers. A soft blur of dust appeared on the rim of the hill where the road dipped into the village; but Merry did not see. The sound of wheels and the ringing beat of a horse's hoofs came nearer, and then near, along the hard road; but Merry did not hear.

"If you work, if you wait,
You will find the place
Where the four-leaf clovers grow,"

she sang on to the end, and finished with an operatic flourish just as a little shower of letters and post-cards dropped on her and the postman's whistle shrilled a long blast in her ears. She caught up a certain pale blue envelop and sprang to her feet.

"Why are you like a watched pot?" she demanded severely.

"Because I 'm boiling." He mopped his face. "My, but it 's a suffering day! Getting in your hay, I see. Never found a four-leaf clover in my life."

Merry offered him hers. "For luck to you," she said. "It 's brought me mine—all these letters."

"Now I should say it was a four-legged horse

that brought you those," the postman chuckled as he drove on.

Merry bundled her treasures all up in her little frilly white apron and ran with them up the long brick walk to the house. "See!" she exulted to her mother, who sat sewing in the low porch. "Help yourself, dear. That black-edged one must be yours."

"From Cousin Audrey Marr," said her mother. "No, it 's from John. You know their son died last winter. I wrote to you."

"Poor things!" Sympathy stayed Merry's feet for a moment, but the blue envelop pulled, and she ran on to her own room without waiting to hear what the black-bordered one contained. If you don't want to read your own precious letters all alone by yourself, then your years are probably more than you like to count; more than little Merry Smith's, at any rate.

On her letters and on her calling-cards she was Miss Merivale Smith. In the family Bible and in the college register she was Jane Merivale Smith. In everybody's heart she was just "little Merry Smith," which might sound the same as plain Mary Smith, her father said, but it did n't look the same, nor feel the same, nor act the same.

That pale blue letter might have contained just six words, for all Merry knew or cared. The first rapturous sentence—"Little Merry Smith, I am *coming*!"—sent her off into a day-dream in which the eight blue pages that followed were quite ignored, not to mention the other three letters and the four post-cards.

Lee Hollister coming!—coming to Merry and Merry's farm! Lee Hollister, a girl come true right out of the Never-Never Land! She was everything that little Merry Smith could wish to be if she should meet the immemorial fairy with the immemorial three wishes. She was rich, and brilliant, and lovely to look at; she had won the Phi Beta Kappa key in her junior year; she was the star of the "Skylarkers," the college comedians; and she was simple and good and sweet, just the very most belovedest girl in Kenmore, according to Freshman Merry, whose own particular guardian junior she had been. And she was coming for one whole wonderful month!

"Merry?" Her mother came into the room, the black-edged letter open in her hand. "Good news, Honey! Cousin Audrey will be here tomorrow morning. Cousin John is going to leave her on his way to Alaska. He's going up there about that railroad, it seems, and he can't take her, she's too frail. Jack's death has nearly killed her." Mrs. Smith's eyes filled with tears. "Will you get your room ready, dear?"

"Oh, Mother!" Merry sprang up, spilling letters and cards out of the little frilly apron. "Oh, Mother *dear!*" her voice trailed off in a little wail.

"I'll help you, Merrybird. It is hard, not having a guest-room. But Granny loves to have you with her. And Audrey will love your pretty room. She had this room when she was on her wedding-trip. And she's never been here since. You were just a tiny girl. Do you remember?"

The unresponsive silence suddenly struck to the mother-heart, and the questioning mother-eyes fell on the blue letter clutched tight in Merry's hand.

"What does Lee say, dear? Oh, child, was she *coming*? And now we can't have her, of course. My dear!—oh my dear!" and the mother-arms drew her close.

Valiant little Merry Smith crammed her letter deep into the pocket of her apron and hugged the little mother who must never be hurt.

"Do I look to *you* as if Lee were coming, Mrs. Smith?" she asked. "Oh, Mommy, there's a crack in my heart *so-o* big!" She indicated the chasm with a wide gesture. "Now if you'll take your shadow off my floor, Alison Smith, I aim to clean house to-day."

"Well, I'm glad she is n't coming." Mrs. Smith drew a breath of relief. "I mean, I'm glad she can't come, for we could n't possibly have her, this house is so hopelessly unstretchable. And if you had to tell her *not* to come—oh, I could n't bear that, dear. Why is n't she coming?"

"No whys or wherefores stated, ma'am!" said

guileless little Merry Smith, stooping quickly to roll up a rug. "Going down, Madam?"

"Gone!" Mrs. Smith called back as she vanished down the stairs. And Merry shut the door.

For five days Cousin Audrey had been lying in Merry's four-poster bed, white and listless, staring at nothing with hopeless, burning eyes. She had been like that, only getting steadily worse, ever since Jack died, her husband had explained. Everything had been done that love or science could suggest, and now he was at the end of his tether. "For all our sakes, *do* something for her, Alison!" he had pleaded. "If this goes on much longer, she will—" Cousin John choked there, but his sad eyes had spoken the unspeakable.

Panama and Bermuda and Palm Beach—he had tried them all, and they had failed. A specialist of world fame, a trained nurse, a sanatorium—they had failed too. And now Cousin John was gone on to Alaska, and the burden of failure was heavy on the Smith family.

"She's just getting *worse*," moaned Alison Smith on the fifth day, at the luncheon table. "Let's have a doctor, Philip. Of course he can't do anything where the great Doctor Jordan has failed, but at least he can take the responsibility. Send for Doctor Reed—he's young and modern."

"Let's have Comstock," Mr. Smith differed; "he's old and experienced."

"Children! children!" Merry put out a restraining hand toward each. "Peace at any price! Let's have 'em *both*."

"Have neither!" pronounced Grandmother Merivale, with finality. "That poor woman upstairs does n't need doctors. I tell you you're all on the wrong track. You'll dose and sympathize her right into a decline—or worse," Granny finished grimly.

"But she's sick, Mother," tender-hearted Alison Smith pleaded. "Her only son!"

"Other women have lost their only sons," said the dauntless old lady.

"Granny," Merry wheedled, "what if I should up and die?"

"I'd up and box your ears if you tried it!" said Granny, calmly. "You think I'm heartless, you people, because I'm trying to tell you that you can't cure a sick mind with tears and 'Oh, dears' and raw eggs. But *send* for David Comstock, Philip. Some folks can't swallow common sense unless it's disguised as medical advice."

Doctor Comstock came. And the Smith family explained the case, or started to, but, "You're cluttering up my mind," said Doctor Comstock. "John's wife, eh? Well, I'll have a talk with her. No, don't come," and he waved Mrs. Smith back.

In an hour he reappeared in the porch. "Where 's little Merry Smith?" he demanded. In the garden, they told him, and there he found her, digging around her roses.

"That white one needs a tonic," he declared, and straightway poured the contents of a big bottle into the loose earth. "And let 's give this red one a bromide," he went on. "Wait till I tell Tom Jordan what I think of him! I taught him better."

"You taught Doctor Jordan?" Merry asked, in surprise.

"He began his studies here in my office," Doctor Comstock replied; "long before *you* came along. Put that trowel *down*, little Merry Smith. I want to talk to you."

"Yes, sir," said Merry, who had pestered and adored the cranky old doctor all her life. She stuck her trowel in the ground and came and sat beside him on the garden bench. "Want to see my tongue?" and she stuck it out.

"No, nor hear it," growled the doctor. "You listen to me." And he told her all about the white, listless lady lying in the big four-poster bed. "You 've got to get her out of that bed and keep her out," he said. "How? It does n't matter how. Use your wits. Make her make an effort—get her going. There 's nothing the matter with her; she 's not sick. She 's like a clock that 's slowly running down because nobody knows how to wind it. Once get her started and there 's a chance. Get her up and then keep her up. Make her work; make her play; get her tired; make her eat three meals a day; stop chasing her with raw eggs—let her eat three times a day, or go hungry. Being honestly hungry has mended broken hearts before now. Child, don't you know that God made life and health and sanity simple, commonplace things that *must* keep on the every-day track of work and play and hunger and sleep—or go to smash?"

"What did you say to Cousin Audrey?" asked Merry.

"I said she must get up," the doctor answered.

"And what did she say to you?"

"She said *I* could get *out*," he chuckled, "or words to that effect. So now it 's up to you. Will you tackle the case, little Merry Smith?"

"Yes, sir," agreed little Merry Smith, after a long minute.

"All right," he said, rising. "Now I 'll go muzzle those sympathizing Smiths, alias your parents, and exchange shots with Jane Merivale," and he started away.

"Wait a minute!" Merry sprang after him. "Shall I let her talk about Jack, Doctor Comstock? Mother has n't."

"All she wants to," he said. "Some wounds are better to bleed. Good day to you, little Merry Smith."

THE listless little lady in the four-poster bed had been aware for some time that a most annoying snipping and rustling were going on over in the window-seat, but it was not worth while to open her eyes and investigate. You have to face too many things when your eyes are open. But at last a muffled "Oh, *dear!*" from the window-seat, and a long silken swish, brought the eyes open involuntarily to behold Merry regarding a length of blue ribbon with utter disgust.

"There are them as can tie bows, and *them* as *can't*," Merry mourned, ungrammatically, as she saw the observing eyes. "Which are you, Cousin Audrey?"

"Them as can," a sweet voice answered. "Bring it here, child; you 'll ruin it. What is it for, that hat? Some pins, please."

She sat up in bed and deftly fashioned what Merry called the "duckiest bow," and then she made Merry sew it on the hat in one particular spot. A gleam of interest flickered for an instant in the listless face, and Merry "followed the gleam," she told her father afterward. She chattered on and on, as one girl chatters to another. "You have just the loveliest things, Cousin Audrey," she said; "and if you don't get up and wear them pretty soon, I 'm going to wear them myself—you watch me!"

"Jack loved pretty clothes," was the sad reply.

"How old was he?" Merry asked.

"Just sixteen." She drew out a locket on a long chain and placed it, open, in Merry's hand. "My two *boys*," she said; "they had them done for my Christmas."

Merry studied the glowing miniatures of father and son. Her breath came fast. This was the chance she had not dared hope for. Dared she take it? She caught her breath, then, with a prayer in her heart, she drove her scalpel straight and true.

"They *look* like two boys," said guileless little Merry Smith. "Cousin John is lots younger than you are, is n't he, Cousin Audrey?"

The white face on the pillow flushed crimson, the burning light in the eyes was quenched in a rush of tears.

"He is five years *older*," the sweet voice snapped; "he is forty-two. Oh, my dear, do I look older than *that*?"

Merry's nerve held. "You do, Audrey Marr," she said, "and you ought to be ashamed of yourself. You are cheating Cousin John out of his lovely young wife."



"THEY LOOK LIKE TWO BOYS," SAID GUILILESS LITTLE MERRY SMITH."

"Jack was my only son," the mother moaned.

"And Cousin John is your only husband," Merry flashed back. "Jack was *his* only son, too," she added. "And you 've let him go away heartbroken for the two of you."

Passionate sobs were shaking the bed now, but little Merry Smith set her teeth and sewed grimly on. "Some wounds are better to bleed," she silenced the sobbing pity that was swelling in her heart. At last she put her arms around the weeping woman and held her close.

"Stop it!" she commanded. "Listen to me." And Cousin Audrey listened. And the end of it was, "And *now* you are going to get up."

"To-morrow," said Cousin Audrey Marr.

"To-day!" said little Merry Smith. "I 'm going to do your hair."

An hour later she surveyed the result of her "operation" with proud eyes. "You 're just the loveliest thing I ever *saw*!" she exulted. And the white cheeks of the beautiful woman in the beautiful white gown glowed pink at the compliment.

Dinner was a success—Cousin Audrey *etc*; the evening was a triumph—Cousin Audrey *talked*. They all sat in the big low porch, and the moon came up, and the scent of pinks drifted in from the dewy garden, and death and loss and heart-break were far away. Little Merry Smith had won.

But it was not so easy as that! The battle won by day had to be fought over again at night. And the bromide was soothing the red roses! Hour by hour, inch by inch, Merry fought it out. Her own desperate desire for sleep made a flank attack, but Merry held it off, making her cousin talk about Jack. If Cousin Audrey grew silent Merry prodded her with a question, until at last real sleep came, sound and healing. When she awoke, the morning was humming outside and Merry lay sleepily blinking at her.

"I guess it 's time we girls got up," Merry yawned.

"To-morrow," promised Mrs. Marr, wearily, as memory dealt her a cruel stab.

Merry almost pushed her out of bed. "To-day," she said, suggestively.

"Merry," said her mother at breakfast, "those currants have just got to be picked this morning, or they will be too ripe for jelly."

"Mr. Smith," said Merry, "what were you intending to do this morning?"

"I must get that manuscript off on the noon mail," her father parried.

"Oh, no, you must n't!" said his daughter. "Editors can wait; jelly won't. I 'll meet you in the currant-patch at eight o' the clock. Grandmother, are you also going to help us out?"

"I thought I 'd pick a currant or two, Merivale," the old lady twinkled.

"'T is well," quoth little Merry Smith. "Come, Alison; come, Audrey."

A hedge of currant-bushes divided the kitchen garden from what Merry called the parlor garden, and thither she merrily chased them. Cousin Audrey worked with the rest for a few minutes, and then she wandered off to sit on the garden bench, tired and listless. Merry watched her anxiously. Mrs. Marr's eyes roamed over the garden. Suddenly they lighted. "Oh, Merry," she called. "Those blessed pansies! Might I pick some?"

"If you only would!" the girl called back. "They have n't been picked for two days. I ought to loosen the earth around them, too; the shower packed it down night before last."

"Let me! Where 's your trowel?" Cousin Audrey was on her knees in the pansy-bed. "You precious *things*!" she breathed.

Doctor Comstock came riding down the lane that skirts the garden on its way from the road to the river. Hearing voices, he drew his horse up to the stone wall and looked over. Philip Smith saw him first.

"Hist!" he shouted; "a word with you! Go while there 's time, or Merry will have *you* picking currants."

"I 'd pick *stars* for little Merry Smith!" the doctor retorted.

Mrs. Smith had come close to the wall. "Doctor Comstock," she pleaded, "I 'm afraid Audrey will be all tired out. Look at her!" Doctor Comstock looked.

"That 's not John's wife!" he gasped. "Oh, Mrs. Marr!" he called. "If you 'll bring me a posy I 'll forgive your firing me out yesterday."

She came across to him, her cheeks very pink, and held up a golden-hearted pansy. "I 'm sorry," she said.

"You need n't be," he laughed. "You got the worst of it when you fell out of my clutches into little Merry Smith's. Shake hands, my dear; I used to trot your husband on my knee."

The hand she gave him was soft and cool, his professional touch noted with satisfaction. The burning eyes had grown cool too, his professional eye observed.

"Dear child," he leaned low from his saddle, "the Lord God walks in the garden in the cool of the day—mind that."

"Let ner get as tired as she will, Alison Merivale," he ordered when she was out of hearing again. "You 've had the most fun of your life getting tired," and he rode on to where Merry was working, close to the wall.

"Little Merry Smith," he said, "you 're a wonder!"

"Yes, sir," little Merry Smith winked at him blithely under her white sunbonnet.

"How did you do it?" he wanted to know. And when she told him, he laughed till he almost fell off his horse.

"Oh, women!" he chuckled in delight. "But to-morrow is another day, little Merry Smith."

"Yes, sir," agreed little Merry Smith.

"Try a glass of hot milk at night," Doctor Comstock suggested as he rode away.

To-morrow was many a day. Merry met them one by one, sometimes gaining, sometimes losing, sometimes just holding her ground. Slowly, very slowly, the listless hours of the day and the sleepless, tortured hours of the night yielded. Slowly, very slowly, Audrey Marr was drawn back to the sweet, safe track of every day.

The pansy-bed helped most. She worked in it by the hour, digging, watering, and transplanting. She filled the house with bowls of the tender, living things. One day Merry asked her if she possibly could pick the roses; after that Merry never touched a rose.

It was surprising how many things turned up that only Cousin Audrey could do. Merry wanted new covers for dressing-table and bureau—*did* Cousin Audrey know how to embroider those lovely Dresden effects? Cousin Audrey did. Merry took her to the village, where she spent an eager hour over linens, flosses, and designs; and the embroidering captured many listless hours.

And Merry did so want somebody to play duets with her. Cousin Audrey proved "a peach" at duets. Merry kept her busy.

As she grew stronger it suddenly became necessary for somebody to walk to the village for the mail every evening. Merry could n't go alone. One day a fourth player was wanted at tennis.

"Dad is getting off a manuscript—he 's no use to me," Merry mourned. "We 'll have to take turns at singles."

Cousin Audrey looked up from her embroidery. "I used to play with Jack," she began. "Maybe—"

"Hooray for our side!" Merry cried. "Run and get your 'sneaks,' and we 'll beat Jim and Polly to a frazzle." They did, too.

And all the mothers in the village suddenly seemed to be sick or lost or gone on a journey, there was such a dearth of chaperones for automobile rides and picnics: Cousin Audrey must come up the hill, and Cousin Audrey must come down the river. Merry's "crowd" frankly annexed her, and youthful cheer claimed her again.

"Oh, you *dear* Cousin Audrey, Cousin John will think you 're his *daughter*!" cried little Merry Smith one day, with a hug.

It was the last week of July. One hot afternoon Polly Evans came for tennis, but the sun soon drove them off the hot court into the cool porch.

"I thought," said Polly, to make conversation, "that your wonderful Lee Hollister was coming for July."

Merry looked up and down and all around, cautiously locating her family. Then, in almost a whisper, she told Polly all about it. "You see," she finished, "I just could n't *let* Lee come; we can't have two guests at a time in this miserable house."

There was a stir in the living-room, behind the swaying curtains. Merry went to the window and looked in, just too late to see somebody in white slip into the hall. And she got to the hall door just too late to see somebody vanish around the curve in the staircase.

"I thought I *heard* somebody!" she fretted.

"I 'll beat you a set," said Polly. "Wake up!"

For three days mystery brooded over that old stone farm-house; Merry heard it and felt it and *smelled* it, but she could n't see it. Letters were taken from the postman by stealth; earnest conversations trailed off into inanities when she appeared; the telephone receiver was always just being hung up as Merry got there. And Cousin Audrey's eyes were shining with happiness! And sometimes Merry caught her singing!

"I 'm afraid of the reaction," Alison Smith worried.

"Let her alone," snapped Grandmother Merivale. "Making other folks happy never hurt folks yet."

On the morning of the fourth day Polly Evans came and carried Merry off up the road in her runabout just as Mr. Smith and his farmer went rattling off down the road in an empty hay-wagon. When the hay-wagon came back it was not empty. And Philip Smith did not "get off" any manuscript that day.

At sunset Merry came up the brick walk, happily singing,

"If you work, if you wait,
You will find the place—"

She stopped short. Something very big and very white seemed to fill the lawn under the south windows of the old stone farm-house.

"Has the circus come to town?" gasped little Merry Smith. Nobody was in sight, the place was strangely still. Cautiously she advanced and cautiously she lifted a curtain of the big white

tent,—“Oh!” and, “Oh!” said little Merry Smith, and, “Oh!”

A wonderful room, all white and blue, invited her. There was a white cot on each side, a long blue-and-white rug between; there was a pair of dainty white dressing-tables, and a big, beautiful white chest of drawers, and a little white writing-table (with a blue blotter), and two white willow chairs.



Cautiously she ventured in. There were letters lying on the blue blotter, one of them pale blue. Merry grabbed it and tore it open.

“Little Merry Smith,” she read, through tears of joy, “I am *coming!*”

And, outside, “Merry’s case” actually was whirling Mrs. Alison Smith and Mr. Philip Smith and Grandmother Merivale around in a wild ring-around-the-rosy!

NEXT-DOOR NEIGHBORS

BY ROBERT EMMET WARD

POLLY had a collie-pup,

Cora had a cat;

And a fence had been put up—

Only think of that!

Next-door neighbors, 'most thirteen,

With a high wire-fence between!

And the feeling was intense

On both sides of that high fence.

Peter was the puppy's name,

Fluff (of course!) the kitty's;

Neither was at all to blame.

'T was a thousand pities

There was no convincing Polly

Pussy would n't scratch her collie;

Cora was quite sure that Peter

Watched poor Fluff, resolved to eat her!

Cora would n't glance that way

When her neighbor Polly

Chanced to come outdoors to play

With her handsome collie.

Polly turned her naughty nose up,—

Calling Peter as she rose up

And retired indoors, when Cora

Came out with her fine Angora.

But a wind-storm came one night—

Blew that fence down flat!

In the morning sunshine bright,

Collie-pup and cat

Were discovered, tired of play,

Curled up in the friendliest way,

In the middle of the wreck—

(Pussy tucked in Peter's neck!)—

Sleeping on the shattered fence,

Wire, and smashed sweet-peas,

Images of innocence,

Happy as you please!

“Cora! Come here *quick!*” called Polly;

“See your kitten and my collie!”

Fluff and Peter never budged—

Seemed to say, “We 've been misjudged!”

“Let 's be friends!” said Polly then;

“It is time enough!

If you 'll like my collie, then

I 'll be fond of Fluff!”

Cora, glad half-way to meet her,

Said, “I 'll simply *love* your Peter!

Why, he *never* would have bitten

Any little darling kitten!”

Polly gave a little grin,

Much abashed and red,

“What a silly goose I 've been,—

Cora dear!” she said.

“How could any one suppose

Fluff would scratch a puppy's nose!”

Happily the story ends:

They are *all* devoted friends!

THE CAMERA MAN

BY FRANCIS ARNOLD COLLINS

Author of "The Wireless Man," etc.

I. AT THE FRONT IN THE GREAT WAR

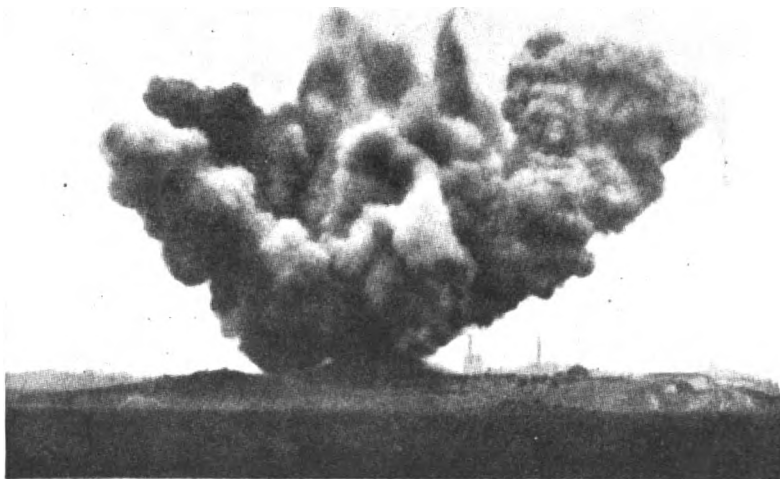
IN most war photographs, even those taken under fire, the soldiers, it will be noticed, have a smile or at least a friendly glance for the camera man, however tragic their surroundings. The activities of the photographers, who have been mobilized in such force in the great European War, come as a welcome relief among the hardships and perils of the soldier's life. The camera has become an essential part of equipment, and in the hands of daring and skilful camera men is not the least dangerous weapon the armies have brought against one another. The unprejudiced eye of the camera has preserved on every battle-field a record, impossible in the past, of the suffering and misery of warfare. This, let us hope, will be its highest service, and the work of the camera man will help the world in quieter times to realize the horrors and wickedness of war.

Throughout the armies and navies of Europe the camera men have been carefully organized. The photographer is usually a commissioned officer, and becomes a recognized part of the great military organizations. There are hundreds of camera men in the first line trenches; they travel on forced marches with troops of cavalry, artillery, and infantry on every battle front in the broad theater of war; they serve with the engineering corps, in the hospitals, with the aeronautical division, and at sea, and are witnesses of every phase of the army's activity.

When a camera man is enlisted, he is assigned to one of the commanders, and while serving he is responsible to him. The photographer makes his permanent residence at the front at the headquarters of the detachment to which he is assigned. He is always at the disposal of the field commander at any hour of the day or night, and takes orders from no one else.

The life of the camera man at the front is a

very hard one. He may be held for days awaiting orders in the field, perhaps under most uncomfortable conditions, ready at any moment to start on a dangerous detail. At daylight some morning he is probably directed to take moving pictures of a certain position on the battle-field, a captured trench or deserted village. He may travel by special automobile or with an advance-guard, or make his way on foot alone. The picture may be taken from the tottering walls of



THE EXPLOSION OF A SHELL FROM A GREAT AUSTRIAN GUN.

some building or from the trenches themselves. Danger and exposure are all in the day's work.

Many films are exposed with the bullets literally flying about the camera man's head. It is a common experience for the cameras to be shot away or smashed by the impact of an exploding shell. A number of the operators have been decorated for conspicuous bravery.

Among the millions of photographs taken during the war no type, it is safe to say, entails more danger than those showing the actual effect of shell-fire. As the photographer must almost of necessity work under fire, to be within range, any of his pictures may very well be his last. To snap a single shot and run would be dangerous enough, but the motion picture operator must hold his position, often with shells bursting about him, adjust his camera, and grind his film pa-

tiently until the scene has been completed. One of the official movie men with the Austrian forces in Poland found himself one day unexpectedly in a position to make some very remarkable films of this kind. He was taking an Austrian artillery regiment bombarding a Russian fort some six miles distant. The aiming and firing was done by telephone direction, and the men imagined themselves entirely out of range. Without warning, the Russians suddenly got their range with remarkable accuracy and began dropping highly explosive shells about them.

The gunners nevertheless stuck pluckily to their guns, and the movie man stuck no less bravely to his camera. When a shell landed within range of his lens, he swung his camera in position and turned the crank. His films show great masses of earth, many tons of it, leaping into the air, in some cases to a height of fully one hundred and fifty feet, and then gradually falling back. So close were many of these shots that the camera man was sprinkled with the falling earth.

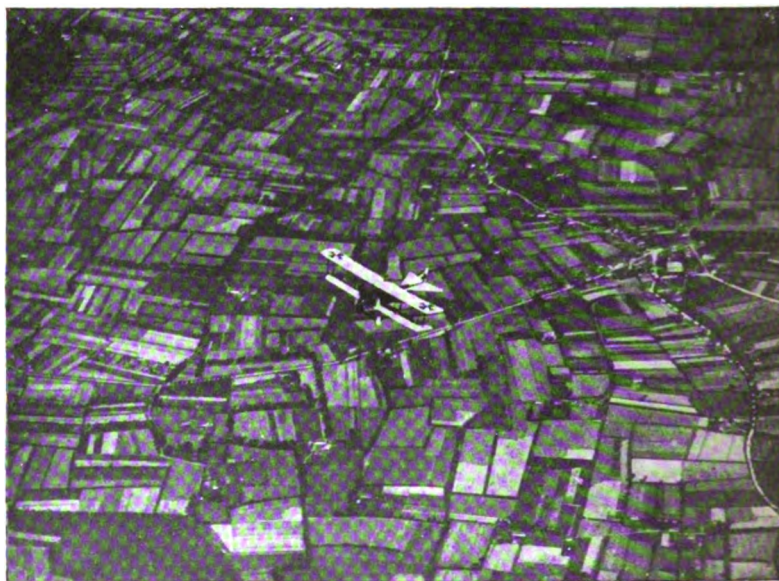
Many remarkable pictures have been secured of actual fighting from a distance, but anything like a "close up," as it is called, of real action is of course very difficult to secure. Some of the best pictures have been caught by accident. A camera man, anticipating a charge of his regiment, once ventured well out from the safety zone, and planted his camera in the lee of a heavy stone wall. After several hours of waiting the advance came, and the movie man caught an amazing "close up" of the men as they rushed past with bayonets fixed and tensely set faces. Before the camera man could find his way back to his own lines, however, there was a rapid retreat, the enemy found the range, and dropped shells all around them. The wall suddenly crumbled and brick and dust rained about him. It was a nervous moment. Grasping his camera, the photographer outran the soldiers in the retreat and was fortunate enough to escape in safety.

A large proportion of the pictures made in the European War are not intended for public exhibition. A rigid censorship is exercised over all

photographic work by the governments, exactly as in the case of the mails and printed matter. The films may be developed in the fields or in near-by cities, but they are not permitted to leave the country until they have been passed upon. A board of censors sits in a darkened room at headquarters and scans every detail of the movies as they flash past. Should some secret, valuable in any way to the army, be revealed, it is erased or the film is destroyed.

The presence of the moving-picture men in such numbers at the front does not mean that the governments are going into the show business. The photographs thus secured, at enormous expense, become matters of official record and are of course invaluable. In no previous war has such complete photographic reproduction been possible, and the government officials have been quick to take advantage of the opportunity. It is estimated that upward of ten thousand films have been prepared by the army movie men in Germany alone. They are intended mainly for educational work in the military training schools.

As illustration for text-books and lectures, the war movies will have a unique value in the classroom. A lesson in strategy, for instance, may be



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A GERMAN AÉROPLANE, PHOTOGRAPHED WHILE FLYING BY A CAMERA MAN IN A SECOND AÉROPLANE HIGHER UP—TAKEN BY A GERMAN AVIATOR OFFICER, IN NORTHERN FRANCE.

illustrated by a moving picture showing the advance or retreat of troops in an actual engagement. Every phase of military instruction may thus be illustrated. The motion pictures showing the construction of bridges will help to train still

more efficient engineers in the future than in the past. A careful study of their value will make the great expense and risk involved in securing these interesting war pictures seem trifling.

A remarkable feat in bridge building was caught by one of the official German movie men with their troops in the advance in Poland. Following their usual custom, the Russians in their retreat destroyed the bridges in order to hinder the advance of the enemy. The photographer was with the advance-guard when they came upon a deep ravine, perhaps a hundred feet in width. He planted his camera in range, reeled off a few feet of film to show the interrupted road, and calmly awaited results.

He had not long to wait.

In a few minutes the bridge-building corps was rushed forward in automobiles with its tools and materials. The next film shows the men attacking the problem with feverish energy. Beams and planks, all prepared in advance for such an emergency, are lifted from the automobile trucks and the bridge takes form before one's eyes. It rises rapidly, heavy flooring is soon in place, and the cavalry are dashing across in exactly eighteen minutes from the time the work was begun.

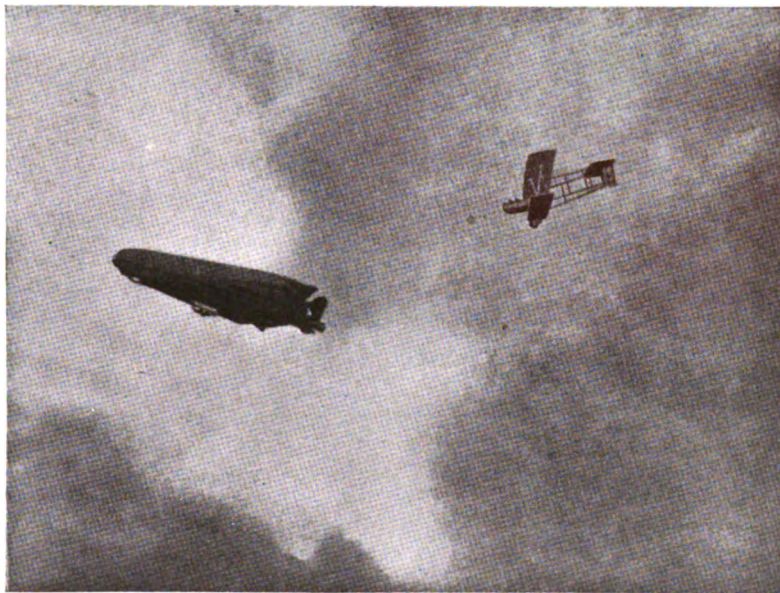
II. AËRO-PHOTOGRAPHY

IN modern warfare the man behind the camera, often in the face of appalling danger, renders perhaps a greater service than the man behind the gun. The keen eye of the camera is never blinded by excitement and its observations are unprejudiced and exact. The camera scout is recognized as a major factor in conducting warfare and has come to be almost indispensable.

Nowhere has the camera man proved himself so essential as in aëroplane scouting. From his vantage point, often directly above the enemy, little remains concealed. His camera looks into the fortifications and trenches, he spies upon the position of the troops and locates concealed batteries. Such photographs keep a commander informed of the exact position of his own and the enemies' troops, outposts and cavalry along the

entire battle line, and prevent unexpected blows, thus practically eliminating the element of surprise, heretofore of great importance.

As a rule the photographer who goes aloft in



AN AIR BATTLE BETWEEN A ZEPPELIN AND A HOSTILE AIR CRAFT.
(AN ACTUAL PHOTOGRAPH, NOT A DRAWING.)

the aëroplane service is a volunteer, for the work is extra-hazardous. In the German army the age limit is fixed at twenty-eight years. The percentage of loss of life in ordinary aëroplane scouting is very large. Even when flying under the most favorable conditions accidents are alarmingly common and a fall is usually fatal. The camera man in the aëroplane, in order to get his focus, must usually work within range of the firing lines. Few precautions are possible. The bottom of the aëroplane may be covered with metal sheets, when it is said to be armored, but the pilot must depend upon his fleetness and elevation to dodge the enemies' fire. There is besides the chance of encountering another aërial craft, probably armed for an attack with a machine-gun. Calmly facing such dangers the camera man must coolly adjust his camera, calculate the value of light and shadow, the speed of his craft, its altitude, and make his exposures at just the right instant. The photographer who loads his plate-holders and, camera in hand, takes his place on a scouting aëroplane faces perhaps a greater hazard than any man of his profession, which is saying a great deal.

Each aëroplane squadron on a war footing comprises as a rule six machines, besides two reserves. Of these, two regulate the cannon

fire, two are used for aërial combat, and two for reconnoitering. Each of the reconnoitering machines is especially equipped for photographic work.

No ordinary camera would serve the aëroplane photographer. The aëro picture must be taken at top speed, or in something like one thousandth of a second, and the camera must be small and light enough to be handled readily. With the air craft flying a mile a minute or better, there is no time for adjusting a complicated apparatus. When traveling at high speed the force of the air will sometimes wrench the camera from the hand. The German photographers in the field work have used a special camera equipped with a pistol grip, and handle this invention as they would a gun. The exposure is made by pressing a trigger which controls the shutter. Such a camera

lens sweeps a broad expanse of country. In the photographs made from a point a thousand feet or more up the detail recorded is often marvelous. A fort or a trench is thus shown as clearly as though snapped by an ordinary camera at a distance of but a few feet. Many of the pictures are taken at high altitudes with the camera inverted and the lens pointed through a hole in the floor of the car.

With these aëro photographs before him the modern commander may be said to look directly *down upon* the battle-field! An attack or a defensive movement may be planned like a game of chess, where every square of the board is beneath the eyes. The value of these aëro views is greatly increased by combining them with the regular military staff maps. An expert mapmaker traces upon these photographs the various boundary

lines, accentuates the roads and other lines of communication, and indicates the towns and villages with their population, and even the buildings which may be of service.



"THE HAPPY GROUPS ON THE SUNNY DECKS."

can be instantly aimed at any object and "discharged" with a single movement of the hand.

These cameras are equipped with lenses which see more clearly than the human eye, and record every possible detail over miles of country, even though they wink in a thousandth of a second. The telephoto camera, which has been especially designed and constructed for aëroplane work, is as powerful as a small telescope or the field-glasses available for an army officer.

With such a camera excellent photographs may be taken at a height of 3500 meters or rather more than two miles. From such altitudes the

III. THE CAMERA MAN AT SEA

ABOARD almost any ship nowadays which puts to sea may be found one or more amateur photographers. On many voyages the camera is carried by more or less skilful hands to the farthest corners of the Seven Seas. Sailors' yarns of travel and adventure, which are the most fascinating stories in the world, have thus been illustrated and verified. Thanks to the camera, the science of geography has become a thing of life.

On any pleasure voyage the camera has come to be an almost indispensable part of one's equipment. The long, bright, care-free days on shipboard especially lend themselves to illustration. The happy groups on the sunny decks with their picturesque backgrounds make fascinating subjects and, in years to come, these chance snap-shots are sure to prove a never-failing source of pleasure and amusement.

Aboard the larger and newer ocean liners completely equipped dark rooms have been provided, which are placed at the disposal of the passengers. Some of these rooms are supplied with electric ruby lanterns, trays, and running water

to accommodate a score of amateurs. The steward in charge will be found to be an experienced photographer who will give practical advice, even lend a helping hand in developing and printing.

sailed on her maiden trip to America. Many more pictures were made on the trip over, and these were developed and printed in large numbers in the ship's dark room at sea. When the steamer



MOUNT BARMASEDA, STRAIT OF MAGELLAN. "THE CAMERA IS CARRIED TO THE FARTHERMOST CORNERS OF THE SEVEN SEAS."

One may entrust the holders with their exposures to his skill and be supplied next day with the finished prints. The demand for material often supports a small photographic supply shop where the necessary materials and even cameras are on sale.

Aboard the great modern liners photography has become a highly developed art. On the first arrival of a new steamer her decks and cabins are of course photographed in detail, and the pictures are published broadcast throughout the country. As the steamers have grown larger and more luxurious they have lent themselves to more careful study. More than three thousand photographs have been taken, for example, aboard one of the new transatlantic liners, illustrating her public and private cabins, and the daily life of her population of thousands of souls above and below decks. The photographer who made these studies crossed the Atlantic twelve times in order to complete the collection.

The ship's photographer in this case made a special trip abroad and secured his first photographs, a large collection, before the steamer

reached New York early one morning, to be boarded by more than a hundred reporters, the ship photographer met them at the gangway with hundreds of pictures ready for distribution.

The newspaper men could take their choice of many beautiful photographs of the liner from various points of view, typical deck scenes and many studies of the life of her passengers in their luxurious cabins. Within an hour or two the early evening editions of the newspapers appeared on the streets with these pictures, and the photographs were already on their way to other cities. The month spent in preparation and the double crossing of the Atlantic was well expended in saving a few hours of valuable time.

During her stay in port many photographs are taken of a steamer's cabin, deck, art treasures, and the details of her equipment, but it is only when at sea that such scenes do her justice.

On the long pleasure cruises to foreign lands again, the camera man is one of the most popular members of the ship's company. Day by day, whether at sea or ashore in some strange land, the ship's photographer goes about illustrating

hundreds of scenes which will in after days enhance the pleasures of memory. The broad, sunny decks of a big modern ship on a cruise are especially well suited for instantaneous work. The daily programs of deck sports and athletic contests, tea parties, the dances, every possible phase of the happy care-free life of these vacations may be preserved. One versatile American photographer traveled more than eighty thousand miles within three years on such cruises, his journeys carrying him to the West Indies, South America, the Land of the Midnight Sun, the Mediterranean, the Orient, and around the world.

A special photographer is usually detailed to accompany any distinguished personage on a sea voyage. No matter how many pictures may have been published, or how familiar a figure may become, the deck of an ocean liner provides a new and interesting setting. Let some distinguished foreign author, statesman, or general announce a visit to America, and one or more photographers will be rushed across the Atlantic to return with him. The average newspaper reader will readily recall many interesting snap-shots of famous people on shipboard. Some of the chance pictures taken of Col. Theodore Roosevelt at sea chatting with the crews or enjoying the deck sports are among the best and most characteristic pictures of the famous ex-President.

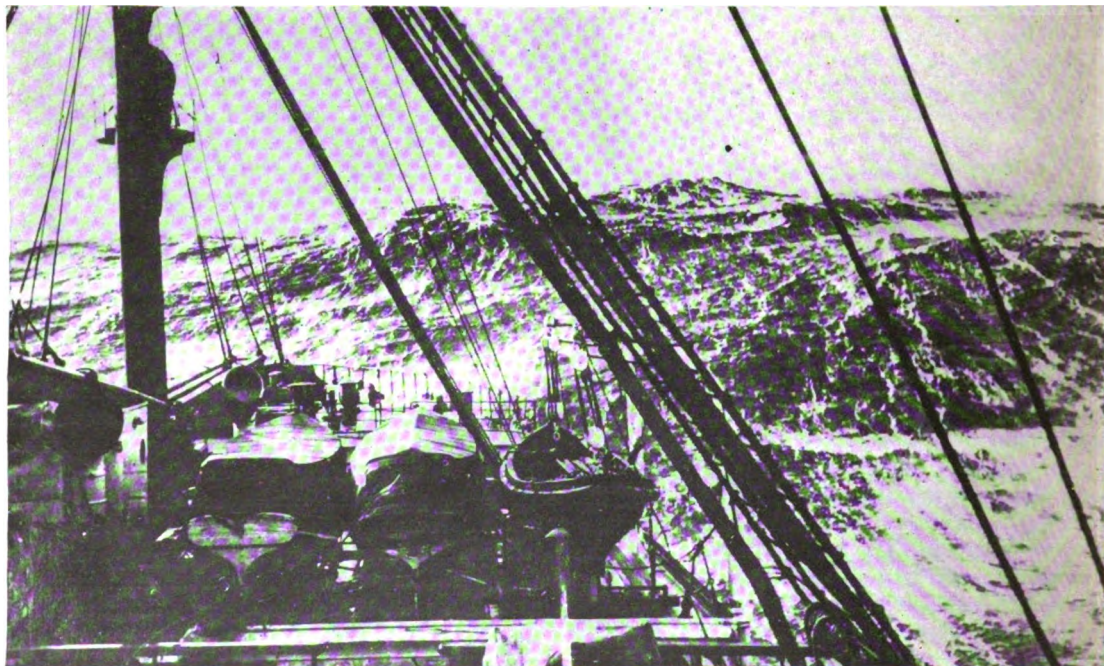
Even the motion-picture photographer is sent

on long ocean trips to film interesting deck scenes. The first movie man to cross the Atlantic on such an errand was probably Lawrence Darmour, who sailed with the Ford peace party to Norway. Darmour is one of the youngest men, or rather boys, to operate a motion-picture camera, having commenced his highly adventurous career at the age of sixteen. Several thousand feet of very interesting film were made while "Fording the Ocean," showing special studies of the prominent members of the peace party with scenes of their daily life on shipboard.

That waves "roll mountain high" is proverbial but inaccurate. The dispassionate eye of the camera, showing exactly how great waves appear close up, has proved that the artists are all wrong or nearly so in their wave pictures. The sea has been photographed in every conceivable mood with innumerable effects of light and shadow, and these pictures often have a beauty and impressiveness which have escaped the marine artists. The spirit of the storm has seldom been expressed so well in any picture as in the remarkable photograph which is reproduced on this page.

The exposure was made from the bridge of a great ocean liner more than fifty feet above the water. A moment after the exposure had been made the great wall of water swept the ship's deck, carrying away one of the three lifeboats in the foreground.

(To be continued.)



THIS GREAT WAVE DID SEEM TO "ROLL MOUNTAIN HIGH." IT CARRIED AWAY ONE OF THE BOATS ON THE DECK.

THE BOYS' LIFE OF MARK TWAIN

BY ALBERT BIGELOW PAINE

Author of "Mark Twain, a Biography," etc.



MARK TWAIN AND HIS DAUGHTER CLARA IN PRIVATE THEATRICALS.

CHAPTER XXXIII BUSINESS DIFFICULTIES— PLEASANTER THINGS

OR the time it would seem that Mark Twain had given up authorship for business. The success of the Grant book had filled his head with plans for others of a like nature. The memoirs of General McClellan and General Sheridan were arranged for. Almost any war-book was considered a good venture. And there was an-

other plan afoot. Pope Leo XIII, in his old age, had given sanction to the preparation of his memoir, and it was to be published by Webster and Co. of New York. Mark Twain's publishing firm seemed on the top wave of success.

The McClellan and Sheridan books were issued, and, in due time, the "Life of Pope Leo XIII"—"published simultaneously in six languages"—issued from the press. A large advance sale had been guaranteed by the general canvassing agents—a fortunate thing, as it proved. For the project did not prove a great success. The book paid, but not largely. The McClellan and Sheridan books, likewise, were only partially successful. Perhaps the public was getting tired of war memoirs. Webster and Co. undertook books of a general sort—travel, fiction, poetry. Many of them did not pay. Their business from a march of triumph had become a battle. They undertook a "Library of American Literature," a work of many volumes, costly to make and even more so to sell. To float this venture they were obliged to borrow large sums.

It seems unfortunate that Mark Twain should have been disturbed by these distracting things in

what should have been his literary high tide. As it was, his business interests and cares absorbed the energy that might otherwise have gone into writing. He was not entirely idle. He did an occasional magazine article or story, and he began a book which he worked at from time to time—the story of a Connecticut Yankee who suddenly finds himself back in the days of King Arthur's reign. Webster was eager to publish another book by his great literary partner, but the work on it went slowly. Then Webster broke down from two years of overwork, and the business management fell into other hands. Though still recognized as a great publishing house, those within the firm of Charles L. Webster and Co. knew that its prospects were not bright.

Furthermore, Mark Twain had finally invested in another patent, the type-setting machine mentioned in a former chapter, and the demands for cash to promote this venture were heavy. To his sister Pamela, about the end of 1887, he wrote: "The type-setter goes on forever at \$3000 a month. . . . We 'll be through with it in three or four months, I reckon,"—a false hope, for the three or four months would lengthen into as many years.

But if there were clouds gathering in the business sky, they were not often allowed to cast a shadow in Mark Twain's home. The beautiful house in Hartford was a place of welcome and merriment, of many guests and of happy children—of happy children *especially*. During these years—the latter half of the eighties—when Mark Twain's fortunes were on the decline his children were at the age to have a good time, and certainly they had it. The dramatic stage which had been first set up at George Warner's for the Christmas "Prince and Pauper" performance was brought over and set up in the Clemens school-room, and every Saturday there were plays or rehearsals, and every little while there would be a grand general performance in the great library downstairs, which would accommodate just eighty-four chairs, filled by parents of the performers and invited guests. In notes dictated many years later Mark Twain said:

We dined as we could, probably with a neighbor, and by quarter to eight in the evening the hickory fire in the hall was pouring a sheet of flame up the chimney, the house was in a drench of gaslight from the ground floor up, the guests were arriving, and there was a babble of hearty greetings, with not a voice in it that was not

old and familiar and affectionate; and when the curtain went up, we looked out from the stage upon none but faces dear to us, none but faces that were lit up with welcome for us.

He was one of the children himself, you see, and therefore on the stage with the others. Katy Leary, for thirty years in the family service, once said to the author: "The children were crazy about acting, and we all enjoyed it as much as they did, especially Mr. Clemens, who was the best actor of all. I have never known a happier household than theirs was during those years."

The plays were not all given by the children. Mark Twain had kept up his German study, and a class met regularly in his home to struggle with the problems of *der*, *die*, and *das*. By and by he wrote a play for the class, "Meisterschaft," a picturesque mixture of German and English, which they gave twice with great success. It was unlike anything attempted before or since. No one but Mark Twain could have written it. Later (January, 1888), in modified form it was published in *THE CENTURY MAGAZINE*. It is his best work of this period.

Many pleasant and amusing things could be recalled from these days if one only had room. A visit with Robert Louis Stevenson was one of them. Stevenson was stopping at a small hotel near Washington Square, and he and Clemens sat on a bench in the sunshine and talked through at least one golden afternoon. What marvelous talk that must have been! "Huck Finn" was one of Stevenson's favorites, and once he told how he had insisted on reading the book aloud to a French artist who was painting his portrait. The Frenchman had protested at first, but presently had fallen a complete victim to *Huck's* story. Once in a letter of Stevenson's he wrote:

My father, an old man, has been prevailed upon to read "Roughing It" (his usual amusement being found in theology), and after one evening spent with the book he declared: "I am frightened. It cannot be safe for a man at my time of life to laugh so much."

Mark Twain had been a "mugwump" during the Blaine-Cleveland campaign in 1880, which means that he had supported the independent Democratic candidate, Grover Cleveland. He was, therefore, in high favor at the White House during both Cleveland administrations, and called there informally whenever business took him to Washington. But on one occasion (it was his first visit after the President's marriage) there was to be a party, and Mrs. Clemens, who could not attend, slipped a little note into the pocket of his evening waistcoat, where he would be sure to find it when dressing, warning him as to his de-

portment. Being presented to young Mrs. Cleveland, he handed her a card on which he had written "He did n't," and asked her to sign her name below those words. Mrs. Cleveland protested that she must know first what it was that he had n't done, finally agreeing to sign if he would tell her immediately all about it, which he promised to do. She signed, and he handed her Mrs. Clemens's note. It was very brief. It said: "Don't wear your arctics in the White House."

Mrs. Cleveland summoned a messenger and had the card mailed immediately to Mrs. Clemens.

Absent-mindedness was characteristic of Mark Twain. He lived so much in the world within that to him the material outer world was often vague and shadowy. Once when he was knocking the balls about in the billiard-room, George, the colored butler, a favorite and privileged household character, brought up a card. So many canvassers came to sell him one thing and another that Clemens promptly assumed this to be one of them. George insisted mildly but firmly that, though a stranger, the caller was certainly a gentleman, and Clemens grumblingly descended the stairs. As he entered the parlor the caller rose and extended his hand. Clemens took it rather limply, for he had noticed some water-colors and engravings leaning against the furniture as if for exhibition, and he was instantly convinced that the caller was a picture-canvasser. Inquiries by the stranger as to Mrs. Clemens and the children did not change Mark Twain's conclusion. He was polite, but unresponsive, and gradually worked the visitor toward the front door. An inquiry as to the home of Charles Dudley Warner caused the caller to be shown eagerly in that direction.

Clemens, on the way back to the billiard-room, heard Mrs. Clemens call him,—she was ill that day,—

"Youth!"

"Yes, Livy." He went in for a word.

"George brought me Mr. B——'s card. I hope you were nice to him; the B——'s were so nice to us, once, in Europe, while you were gone."

"The B——'s—why, Livy!"

"Yes, of course; and I asked him to be sure to call when he came to Hartford."

"Well, he 's been here."

"Oh, Youth, have you done anything?"

"Yes, of course I have. He seemed to have some pictures to sell, so I sent him over to Warner's. I noticed he did n't take them with him. Land sakes, Livy, what can I do?"

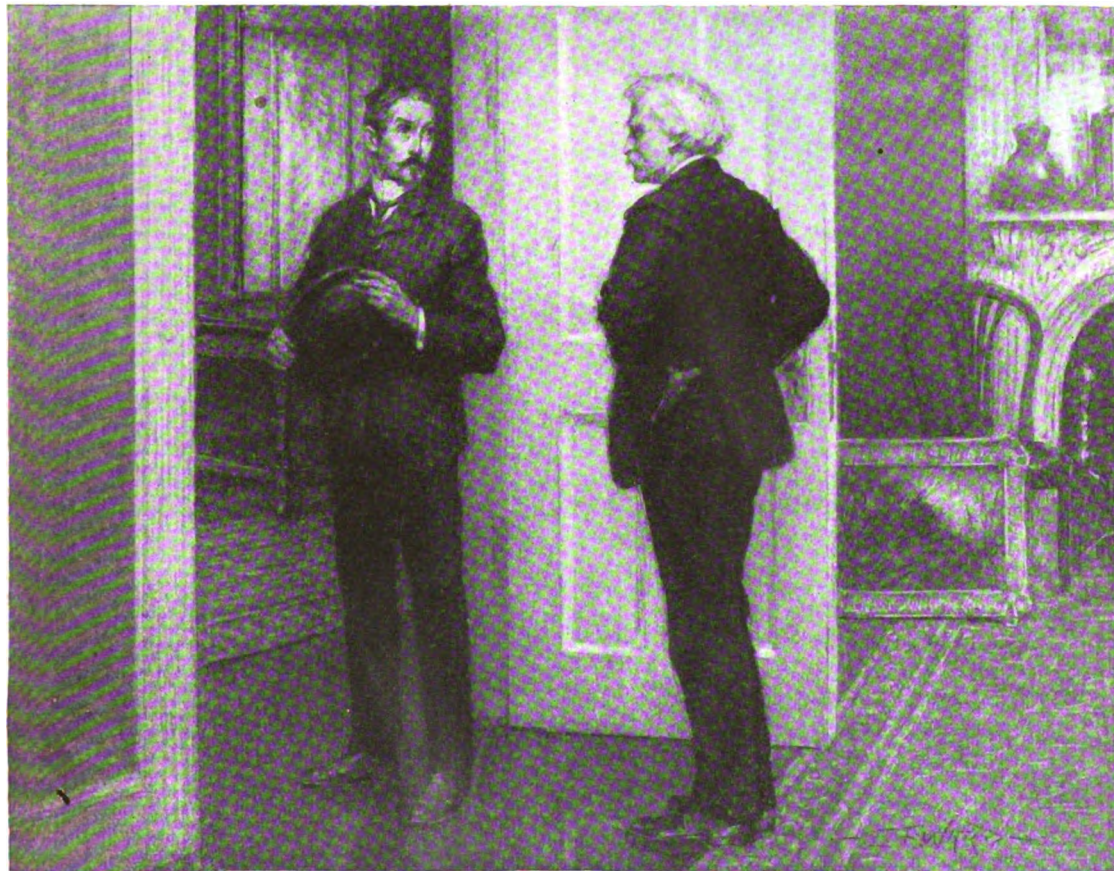
"Go right after him—go quick! Tell him what you have done."

He went without further delay, bareheaded and

in his slippers, as usual. Warner and B—— were in cheerful conversation. They had met before. Clemens entered gaily.

"Oh, yes, I see! You found him all right. Charlie, we met Mr. B—— and his wife in Europe and they made things pleasant for us. I wanted to come over here *with* him, but was a

It was in June, 1888, that Yale College conferred upon Mark Twain the degree of master of arts. He was proud of the honor, for it was recognition of a kind that had not come to him before—remarkable recognition, when we remember how as a child he had hated all schools and study, having ended his classroom days when he was twelve



"MARK TWAIN WAS POLITE, BUT UNRESPONSIVE, AND GRADUALLY WORKED THE VISITOR TOWARD THE FRONT DOOR."

good deal occupied just then. Livy is n't very well, but seems better now; so I just followed along to have a good talk, all together."

He stayed an hour, and whatever bad impression had formed in B——'s mind faded long before the hour ended. Returning home, Clemens noticed the pictures still on the parlor floor.

"George," he said, "what pictures are these that gentleman left?"

"Why, Mr. Clemens, those are our own pictures. Mrs. Clemens had me set them around to see how they would look in new places. The gentleman was only looking at them while he waited for you to come down."

years old. He could not go to New Haven at the time, but later in the year made the students a delightful address.

It was hardly the sort of an address that the holder of a college degree is expected to make, but doctors and students alike welcomed it hilariously from Mark Twain.

Not many great things happened to Mark Twain during this long period of semi-literary inaction, but many interesting ones. When Bill Nye, the humorist, and James Whitcomb Riley joined themselves in an entertainment combination, Mark Twain introduced them to their first Boston audience—a great event to them and to

Boston. Clemens himself gave a reading now and then, but not for money. Once, when Col. Richard Malcolm Johnston and Thomas Nelson Page were to give a reading in Baltimore, Page's wife fell ill, and Col. Johnston wired to Charles Dudley Warner asking him to come in Page's stead. Warner, unable to go, handed the telegram to Clemens, who promptly answered that he would come. They read to a packed house, and when the audience had gone and the returns were counted, an equal amount was handed to each of the authors. Clemens pushed his share over to Johnston, saying:

"That 's yours, Colonel. I 'm not reading for money these days."

Colonel Johnston, to whom the sum was important, tried to thank him, but Clemens only said:

"Never mind, Colonel; it only gives me pleasure to do you that little favor. You can pass it along some day."

As a matter of fact, Mark Twain himself was beginning to be hard pressed for funds at this time, but was strong in the faith that he would presently be a multi-millionaire. The type-setting machine was still costing a vast sum, but each week its inventor promised that a few more weeks or months would see it finished, and then a tide of wealth would come rolling in. Mark Twain felt that a man with shiploads of money almost in port could not properly entertain the public for pay. He read for institutions, schools, benefits, and the like without charge.

CHAPTER XXXIV

KIPLING AT ELMIRA—"THE PRINCE AND THE PAUPER" PLAY—THE "YANKEE"—ONTEORA

ONE day during the summer of 1889 a notable meeting took place in Elmira. On a blazing forenoon a rather small and very hot young man in a slow, sizzling hack made his way up East Hill to Quarry Farm. He inquired for Mark Twain, only to be told that he was at the Langdon home down in the town which the young man had just left. So he sat for a little on the pleasant veranda, and Mrs. Crane and Susy Clemens, who were there, brought him some cool milk and listened to him talk in a way which seemed to them very entertaining and wonderful. When he went away, he left his card with a name on it strange to them—strange to the world at that time. The name was Rudyard Kipling. Also on the card was the address Allahabad, and Susy kept it because, to her, India was fairyland.

Kipling went down into Elmira and found Mark Twain. In his book "American Notes" he has left an account of that visit. He claimed that

he had traveled around the world to see Mark Twain, and his article begins:

You are a contemptible lot over yonder. Some of you are commissioners and some are lieutenant-governors, and some have the V.C., and a few are privileged to walk about the mall arm in arm with the viceroy; but I have seen Mark Twain this golden morning, have shaken his hand and smoked a cigar—no, two cigars—with him, and talked with him for more than two hours!

But one should read the article entire—it is so worth while. Clemens also, long after, dictated an account of the meeting:

Kipling came down and spent a couple of hours with me, and at the end of that time I had surprised him as much as he had surprised me—and the honors were easy. I believed that he knew more than any person I had met before, and I knew that he knew that I knew less than any person *he* had met before. . . . When he had gone, Mrs. Langdon wanted to know about my visitor. I said:

"He is a stranger to me, but he is a most remarkable man—and I am the other one. Between us we cover all knowledge. He knows all that can be known, and I know the rest."

He *was* a stranger to me and all the world, and remained so for twelve months; but then he became suddenly known and universally known. . . . George Warner came into our library one morning in Hartford with a small book in his hand and asked me if I had ever heard of Rudyard Kipling. I said "No."

He said I would hear of him very soon, and that the noise he made would be loud and continuous. . . . A day or two later he brought a copy of the London "World" which had a sketch of Kipling in it and a mention of the fact that he had traveled in the United States. According to the sketch he had passed through Elmira. This remark, with the additional fact that he hailed from India, attracted my attention—also Susy's. She went to her room and brought his card from its place in the frame of her mirror, and the Quarry Farm visitor stood identified.

A PROFESSIONAL production of "The Prince and the Pauper," dramatized by Mrs. A. S. Richardson, was one of the events of this period. It was a charming performance, even if not a great financial success, and little Elsie Leslie, who played the double part of the *Prince* and *Tom Canty*, became a great favorite in the Clemens home.

FOR five years Mark Twain had not published a book. Since the appearance of "Huck Finn" at the end of 1884 he had given the public only an occasional magazine story or article. His business struggle and the type-setter had consumed not only his fortune, but his time and energy. Now at last, however, a book was ready. The tale of "A Yankee at the Court of King Arthur" came from the press of Webster and Co. at the end of 1889, a handsome book, elaborately and wonderfully illustrated by Dan Beard—a preten-

tious volume which Mark Twain really considered his last. "It's my swan song, my retirement from literature permanently," he wrote Howells, though certainly he was young, fifty-four, to have reached this conclusion.

The story of the "Yankee"—a fanciful narrative of a skilled Yankee mechanic, swept backward through the centuries to the dim day of Arthur and his Round Table—is often grotesque enough in its humor, but under it all is Mark Twain's great humanity in fierce and noble protest against unjust laws, the tyranny of an individual or of a ruling class—oppression of every sort. As in "The Prince and Pauper" the wandering heir to the throne is brought in contact with cruel injustice and misery, so in the "Yankee" the king himself becomes one of a band of fettered slaves, and through degradation and horror of soul acquires mercy and humility.

The "Yankee in King Arthur's Court" is a splendidly imagined tale. Edmund Clarence Stedman and William Dean Howells have ranked it very high. Howells once wrote: "Of all the fanciful schemes in fiction it pleases me most." The "Yankee" has not held its place in public favor with Mark Twain's earlier books; but no lover of a good story can afford to leave it unread.

When the summer came again, Mark Twain and his family decided for once to forego Quarry Farm for a season in the Catskills, and presently found themselves located in a cottage at Onteora in the midst of a most delightful colony. Mrs. Mary Mapes Dodge, then editor of *ST. NICHOLAS*, was there, and Mrs. Custer, and Brander Matthews, and Laurence Hutton, and a score of other congenial spirits. There was constant visiting from one cottage to another, with frequent gatherings at the inn, which was general headquarters. Susy Clemens, now eighteen, was a central figure, brilliant, eager, intense, ambitious for achievement—lacking only in physical strength. She was so flower-like, it seemed always that her fragile body must be consumed by the flame of her spirit. It was a happy summer, but it closed sadly. Clemens was called to Keokuk in August to his mother's bedside. A few weeks later came the end, and Jane Clemens had closed her long and useful life. She was in her eighty-eighth year. A little later, at Elmira, followed the death of Mrs. Clemens's mother, a sweet and gentle woman.

CHAPTER XXXV

THE MACHINE—GOOD-BY TO HARTFORD—HONORS
ABROAD—"JOAN" IS BEGUN

It was hoped that the profits from the "Yankee" would provide for all needs until the great sums

which were to come from the type-setter should begin rolling in. The book did yield a large return, but alas! the hope of the type-setter, deferred year after year and month after month, never reached fulfillment. Its inventor, James W. Paige, whom Mark Twain once called "a poet,—yes, a great and genuine poet, whose sublime creations are written in steel," during ten years of persistent experiment had created one of the most marvelous machines ever constructed. It would set and distribute type, adjust the spaces, detect flaws—would perform almost anything that a human being could do, with more exactness and far more swiftness. Mark Twain, himself a practical printer, seeing it in its earlier stages of development, and realizing what a fortune must come from a perfect type-setting machine, was willing to furnish his last dollar to complete the invention. But there the trouble lay. It could never be complete. It was too intricate, too much like a human being, too easy to get out of order, too hard to set right. Paige, fully confident, always believed he was just on the verge of perfecting some appliance that would overcome all difficulties, and the machine finally consisted of twenty thousand minutely exact parts; each of which required expert workmanship and had to be fitted by hand. Mark Twain once wrote:

"All other wonderful inventions of the human brain sink pretty nearly into commonplaces contrasted with this awful, mechanical miracle."

This was true, and it conveys the secret of its failure. It was too much of a miracle to be reliable. Sometimes it would run steadily for hours, but then some part of its delicate mechanism would fail, and days, even weeks, were required to repair it. It is all too long a story to be given here. It has been fully told elsewhere.¹ By the end of 1890 Mark Twain had put in all his available capital, and was heavily in debt. He had spent one hundred and ninety thousand dollars on the machine, no penny of which would ever be returned. Outside capital to carry on the enterprise was promised, but it failed him. Still believing that there were "millions in it," he realized that for the present, at least, he could do no more.

Two things were clear: he must fall back on authorship for revenue, and he must retrench. In the present low stage of his fortunes he could no longer afford to live in the Hartford house. He decided to take the family abroad, where living was cheaper and where he might be able to work with fewer distractions.

He began writing at a great rate articles and

¹ In "Mark Twain—a Biography," by the same author.

stories for the magazines. He hunted out the old play he had written with Howells long before and made a book of it, "The American Claimant." Then in June of 1891, he closed the beautiful Hartford house, where for seventeen years they had found an ideal home; where the children had grown through their sweet early life; where the world's wisest had come and gone, pausing a little to laugh with the world's greatest merry-maker. The furniture was shrouded, the curtains drawn, the light shut away.

While the carriage was waiting, Mrs. Clemens went back and took a last look into each of the rooms, as if bidding a kind of good-by to the past. Then she entered the carriage, and Patrick McAleer, who had been with Mark Twain and his wife since their wedding day, drove them to the station for the last time.

Mark Twain had a contract for six newspaper letters at one thousand dollars each. He was troubled with rheumatism in his arm and wrote his first letter from Aix-les-Bains, a watering-place, a "health factory" as he called it, and another from Marienbad. They were in Germany in August, and one day came to Heidelberg, where they occupied their old apartment of thirteen years before, room forty, in the Schloss Hotel, with its far prospect of wood and hill, the winding Neckar, and the blue distant valley of the Rhine. Then presently they came to Switzerland, to Ouchy-Lausanne by lovely Lake Geneva, and here Clemens left the family and, with a guide and a boatman, went drifting down the Rhone in a curious flat-bottomed craft, thinking to find material for one or more articles, possibly for a book. But drifting down that fair river through still September days, past ancient drowsy villages, among sloping vineyards where grapes were ripening in the tranquil sunlight, was too restful and soothing for work. In a letter home he wrote:

It 's too delicious, floating with the swift current under the awning these superb, sunshiny days in peace and quietness. Some of the curious old historical towns strangely persuade me, but it 's so lovely afloat that I don't stop, but view them from the outside and sail on. . . . I want to do all the rivers of Europe in an open boat in summer weather.

He finished the trip at Arles—a beautiful trip from beginning to end, but without literary result. When he undertook to write it, he found that it lacked incident; and what was worse, it lacked humor. To undertake to create both was too much. After a few chapters he put the manuscript aside unfinished, and so it remains to this day.

The Clemens family spent the winter in Berlin,

a gay winter with Mark Twain as one of the distinguished figures of the German capital. He was received everywhere and made much of. Once a small, choice dinner was given him by Kaiser William II, and later a breakfast by the empress. His books were great favorites in the German royal family. The kaiser particularly enjoyed the Mississippi book, while the essay on "The Awful German Language," in the "Tramp Abroad," he pronounced one of the finest pieces of humor ever written. Mark Twain's books were favorites, in fact, throughout Germany. The doorman in his hotel had them all in his little room, and discovering one day that their guest Samuel L. Clemens and Mark Twain were one, he nearly exploded with excitement. Dragging the author to his small room, he pointed at the shelf:

"There," he said, "you wrote them! I 've found it out. *Ach!* I did not know it before, and I ask a million pardons."

Affairs were not going well in America, and in June Clemens made a trip over to see what could be done. Probably he did very little, and he was back presently at Nauheim, a watering-place, where he was able to work rather quietly. He began two stories—one of them, "The Extraordinary Twins," which was the first form of "Pudd'nhead Wilson"; the other, "Tom Sawyer Abroad," for ST. NICHOLAS. Twichell came to Nauheim during the summer, and one day he and Clemens ran over to Homburg, not far away. The Prince of Wales (later King Edward VII) was there, and Clemens and Twichell, walking in the park, met the Prince with the British Ambassador and were presented. Twichell in an account of the meeting said:

"The meeting between the Prince and Mark was a most cordial one on both sides, and presently the prince took Mark Twain's arm and the two marched up and down, talking earnestly together, the prince solid, erect, and soldier-like, Clemens weaving along in his curious swinging gait, in full tide of talk and brandishing a sun umbrella of the most scandalous description."

At Villa Viviani, an old, old mansion outside of Florence on the hill toward Settignano, Mark Twain finished "Tom Sawyer Abroad," also "Pudd'nhead Wilson," and wrote the first half of a book that had really had its beginning on the day when, an apprentice-boy in Hannibal, he had found a stray leaf from the pathetic story of Joan of Arc. All his life she had been his idol, and he had meant some day to write of her. Now, in this weather-stained old palace, looking down on Florence, medieval and hazy, and across

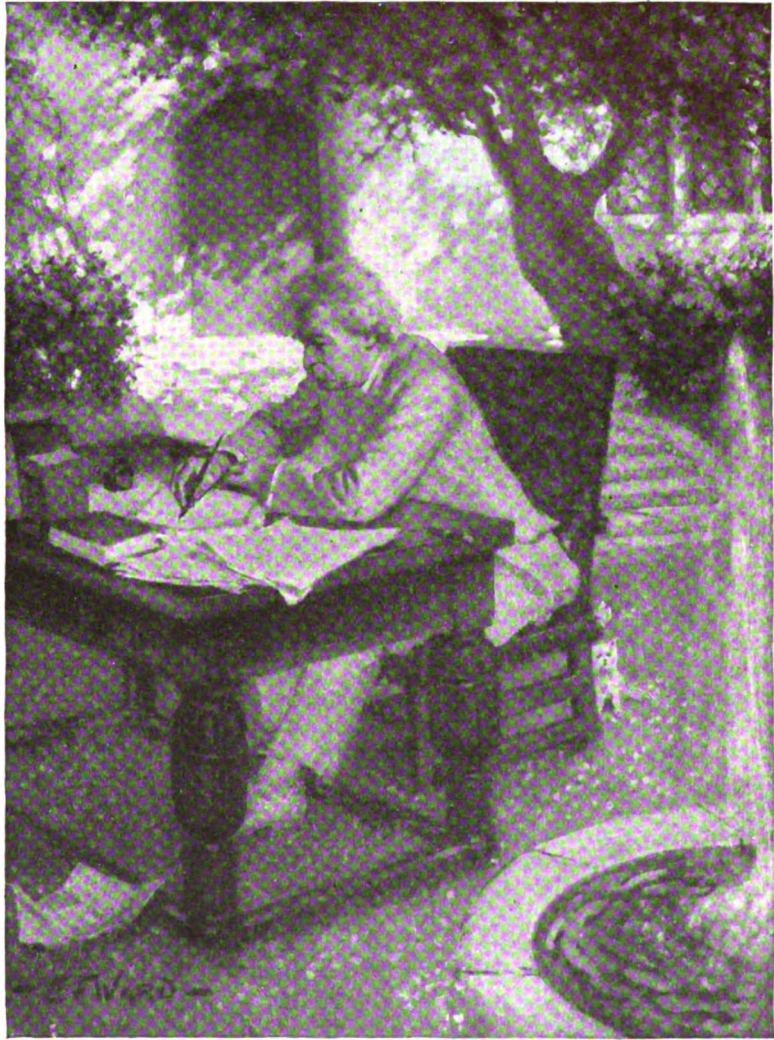
to the villa-dotted hills, he began one of the most beautiful stories ever written, the "Personal Recollections of Joan of Arc." He wrote in the first person, assuming the character of Joan's secretary, *Sieur Louis de Conte*, who in his old age is telling the great story of the Maid of Orléans. It was Mark Twain's purpose this time to publish anonymously. Walking the floor one day at Viviani and smoking vigorously, he said to Mrs. Clemens and Susy:

"I shall never be accepted seriously over my own signature. People always want to laugh over what I write, and are disappointed if they don't find a joke in it. This is to be a serious book. It means more to me than anything else I have ever undertaken. I shall write it anonymously."

So it was that the gentle *Sieur de Conte* took up the pen, and the tale of Joan was begun in the ancient garden of Viviani, a setting appropriate to its lovely form.

He wrote rapidly when once his plan was perfected and his material arranged. The reading of his youth and manhood was now recalled not merely as reading, but as remembered reality. It was as if he were truly the old *Sieur de Conte*, saturated with memories, pouring out the tender, tragic tale. In six weeks he had written one hundred thousand words; remarkable progress at any time, the more so when we consider that some of the authorities he consulted were in a foreign tongue. He had always, at intervals, kept up his study of French, begun so long ago on the river, and it stood him now in good stead. Still, it was never easy for him, and the multitude of notes that still exist along the margin of his French authorities show the magnitude of his work. Others of the family went down into the city almost daily, but he stayed in the still garden with Joan. Florence and its suburbs were full of delightful people, some of them old friends. There were lunch-

eons, dinners, teas, dances, and the like always in progress, but he resisted most of these things, preferring to remain the quaint old *Sieur de Conte*, following again the banner of the Maid of Orléans marshaling her twilight armies across his illumined page.



"THE TALE OF JOAN WAS BEGUN IN THE ANCIENT GARDEN OF VIVIANI."

But the next spring, March, 1893, he was obliged to put aside the manuscript and hurry to America again; fruitlessly, of course, for a financial stress was on the land; the business of Webster and Co. was on the down-grade—nothing could save it. There was new hope in the old type-setting machine, but his faith in the resurrection was not strong. The strain of his affairs was telling on him. The business owed a great sum, with no prospect of relief. Back in

Europe again, Mark Twain wrote F. D. Hall, his business manager in New York:

I am terribly tired of business. I am by nature and disposition unfit for it, and I want to get out of it. I am standing on a volcano. . . . Get me out of business.

Tantalizing letters continued to come, holding out hope in the business, the machine, in any straw that promised a little support through the financial storm.

They closed Viviani in June and returned to Germany. By the end of August Clemens could stand no longer the strain of his American affairs, and leaving the family at some German baths, he once more sailed for New York.

CHAPTER XXXVI

THE FAILURE OF WEBSTER AND CO.—AROUND THE WORLD—SORROW

IN a room at The Players club—"a cheap room," he wrote home, "at \$1.50 per day,"—Mark Twain spent the winter, hoping against hope to weather the financial storm. His fortunes were at a lower ebb than ever before; lower even than during those bleak mining days among the Esmeralda hills. Then there had been no one but himself, and he was young. Now, at fifty-eight, he had precious lives dependent upon him, and he was weighed down by debt. The liabilities of his firm were fully two hundred thousand dollars—sixty thousand of which were owing to Mrs. Clemens for money advanced, but the large remaining sum was due to banks, printers, binders, and the manufacturers of paper. A panic was on the land and there was no business. What he was to do, Clemens did not know. He spent most of his days in his room trying to write, and succeeded in finishing several magazine articles. Outwardly cheerful, he hid the bitterness of his situation.

A few, however, knew the true state of his affairs. One of these one night introduced him to Henry H. Rogers, the Standard Oil millionaire.

"Mr. Clemens," said Mr. Rogers, "I was one of your early admirers. I heard you lecture a long time ago on the Sandwich Islands."

They sat down at a table, and Mark Twain told amusing stories. Rogers was in a perpetual gale of laughter. They became friends from that evening, and in due time the author had confessed to the financier all his business worries.

"You had better let me look into things a little," Rogers said, and he advised Clemens to "stop walking the floor."

It was characteristic of Mark Twain to be willing to unload his affairs upon any one that he thought able to bear the burden. He became a

new man overnight. For with Mr. Rogers in charge life was once more worth while. He accepted invitations from the Rogers family and from many others, and was presently so gay, so widely sought, and seen in so many places that one of his acquaintances, "Jamie" Dodge, dubbed him the "Belle of New York."

Henry Rogers, meanwhile, was "looking into things." He had reasonable faith in the type-machine, and advanced a large sum on the chance of its proving a success. This of course lifted Mark Twain quite into the clouds. Daily he wrote and cabled all sorts of glowing hopes to his family, then in Paris. Once he wrote:

The ship is in sight now. . . . When the anchor is down, then I shall say: Farewell—a long farewell—to business! I will never touch it again! I will live in literature, I will wallow in it, revel in it: I will swim in ink!

Once he cabled, "Expect good news in ten days"; and a little later, "Look out for good news"; and in a few days, "Nearing success."

Those Sellers-like messages could not but appeal to Mrs. Clemens's sense of humor, even in those dark days. To her sister she wrote:

"They make me laugh, for they are so like my beloved Colonel."

The affairs of Webster and Co. Mr. Rogers found in a bad way. When at last in April, 1894, the crisis came,—a demand by the chief creditors for payment,—he advised immediate assignment as the only course.

So the firm of Webster and Co. closed its doors. The business which less than ten years before had begun so prosperously had ended in failure. Mark Twain, nearing fifty-nine, was bankrupt. When all the firm's effects had been sold and applied on the accounts, he was still more than seventy thousand dollars in debt. Friends stepped in and offered to lend him money, but he declined these offers. Through Mr. Rogers a basis of settlement at fifty cents on the dollar was arranged, and Mark Twain said:

"Give me time and I will pay the other fifty."

No one but his wife and Mr. Rogers, however, believed that at his age he would be able to make good the promise. Many advised him not to attempt it, but to settle once and for all on the legal basis as arranged. Sometimes in moments of despondency he almost surrendered. Once he said:

"I need not dream of paying it. I never could manage it."

But these were only the hard moments. For the most part he kept up good heart and confidence. It is true that he now believed again in the future of the type-setter, and that returns

from it would pay him out of bankruptcy. But later in the year this final hope was taken away. Mr. Rogers wrote that in the crucial test the machine had failed to prove itself practical and that the whole project had been finally and permanently abandoned. The shock of disappointment was heavy for the moment, but then it was over—completely over—for that old mechanical demon, that vampire of invention that had sapped his fortune so long, was laid at last. The worst had happened; there was nothing more to dread. Within a week Mark Twain (he was now back in Paris with the family) had settled down to work once more on the "Recollections of Joan," and all mention and memory of the type-setter was forever put away. The machine stands today in the Sibley College of Engineering, where it is exhibited as the costliest piece of mechanism for its size ever constructed. Mark Twain once received a letter from an author who had written a book to assist inventors and patentees, asking for his indorsement. He replied:

Dear Sir:

I have, as you say, been interested in patents and patentees. If your book tells how to exterminate inventors send me nine editions. Send them by express.

Very truly yours,

S. L. CLEMENS.

Those were economical days. There was no income except from the old books, and at the time this was not large. The Clemens family, however, was cheerful, and Mark Twain was once more in splendid working form. The story of Joan hurried to its tragic conclusion. Each night he read to the family what he had written that day, and Susy, who was easily moved, would say, "Wait—wait till I get my handkerchief"; and one night when the last pages had been written and read, and the fearful scene at Rouen had been depicted, Susy wrote in her diary, "To-night Joan of Arc was burned at the stake," meaning that the book was finished.

Susy herself had fine literary taste, and might have written had not her greater purpose been to sing. There are fragments of her writing that show the true literary touch. Both Susy and her father cared more for "Joan" than for any of the former books. To Mr. Rogers Clemens wrote, "Possibly the book may not sell, but that is nothing—it was written for love." It was placed serially with Harper's Magazine and appeared anonymously, but the public soon identified the inimitable touch of Mark Twain.

It was now the spring of 1895, and Mark Twain had decided upon a new plan to restore his fortunes. Platform work had always paid him well, and though he disliked it now more than ever,

he had resolved upon something unheard-of in that line—nothing less, in fact, than a platform tour around the world! In May, with the family, he sailed for America, and after a month or two of rest at Quarry Farm he set out with Mrs. Clemens and Clara and with his American agent J. B. Pond for the Pacific Coast. Susy and Jean remained behind with their aunt at the farm. The travelers left Elmira at night, and they always remembered the picture of Susy, standing under the electric light of the railway platform, waving them good-by.

Mark Twain's tour of the world was a success from the beginning. Everywhere he was received with splendid honors,—in America, in Australia, in New Zealand, in India, in Ceylon, in South Africa; wherever he went his welcome was a grand ovation, his theatres and halls were never large enough to hold his audiences. With the possible exception of General Grant's long tour in 1878-9, there has hardly been a more gorgeous progress than Mark Twain's trip around the globe. Everywhere they were overwhelmed with attentions and gifts. We cannot begin to tell the story of that journey here. In "Following the Equator," Mark Twain himself told it in his own delightful fashion.

From time to time along the way Mark Twain forwarded his accumulated profits to Mr. Rogers to apply against his debts, and by the time they sailed from South Africa the sum was large enough to encourage him to believe that, with the royalties to be derived from the book he would write of his travels, he might be able to pay in full and so face the world once more a free man. Their long trip—it had lasted a full year—was nearing its end. They would spend the winter in London—Susy and Jean were notified to join them there. They would all be reunited. The outlook seemed bright once more.

They reached England the last of July. Susy and Jean, with Katy Leary, were to arrive on the twelfth of August. But the twelfth did not bring them—it brought instead a letter. Susy was not well, the letter said; the sailing had been postponed. The letter added that it was nothing serious, but her parents cabled at once for later news. Receiving no satisfactory answer, Mrs. Clemens, full of forebodings, prepared to sail with Clara for America. Clemens would remain in London to arrange for the winter residence. A cable came saying Susy's recovery would be slow, but certain. Mrs. Clemens and Clara sailed immediately. In some notes he once dictated Mark Twain said:

"That was the 15th of August, 1896. Three days later, when my wife and Clara were about

half-way across the ocean, I was standing in our dining-room, thinking of nothing in particular, when a cablegram was put into my hand. It said: 'Susy was peacefully released to-day.'"

Mark Twain's life had contained other tragedies, but no other that equaled this one. The dead girl had been his heart's pride; it was a year since they parted, and now he knew he would never see her again. The blow had found him alone and among strangers. In that day he could not even reach out to those upon the ocean, drawing daily nearer to the heartbreak.

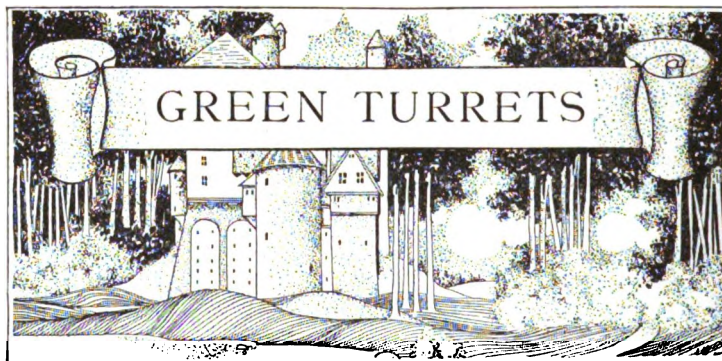
Susy Clemens had died in the old Hartford home. She had been well for a time at the farm, but then her health had declined. She worked continuously at her singing lessons and overtried her strength. Then she went on a visit to Mrs. Charles Dudley Warner, in Hartford; but she did not rest, working harder than ever at her singing. Finally, she was told that she must

consult a physician. The doctor came and prescribed soothing remedies, and advised that she have the rest and quiet of her own home. Mrs. Crane came from Elmira, also her Uncle Charles Langdon. But Susy became worse, and a few days later her malady was pronounced meningitis. This was the fifteenth of August, the day that her mother and Clara sailed from England. She was delirious and burning with fever, but at last sank into unconsciousness. She died three days later, and on the night that Mrs. Clemens and Clara arrived was taken to Elmira for burial.

They laid her beside the little brother who had died so long before, and ordered a headstone with some lines which they had found in Australia, written by Robert Richardson:

Warm summer sun shine kindly here;
Warm southern wind blow softly here;
Green sod above lie light, lie light—
Good night, dear heart, good night, good night.

(To be continued.)



BY HILDA W. SMITH

My maple-tree a turret stands
Upon a grassy hill;
The errant winds from many lands
Blow through my tower at will;
And I, a princess, sit enthroned
Within the topmost room
And weave the sunlight and the rain
Across my leafy loom.
The colors in the web I weave
The breezes bring to me;
Gray music of the mountain tops,
Blue whispers of the sea.
Within my high, green-raftered room
What chorusing I've heard!
The trilly notes upon my loom
Are caught from every bird.

I weave the songs of orioles
And bluebirds on the wing;
The buckwheat's and the clover's scent
Are in my patterning.
Oh, far abroad through all the land,
Green turrets of the trees
Along the craggy mountains stand,
And fringe the flashing seas.
I see their thousand windows lit
Against the sunset sky.
Within those towers do others sit?
Princesses, such as I?
Do other maidens climb the stair
Beneath their fluttering eaves,
Who weave the sunlight and the rain
Through all the blowing leaves?

LAWN-TENNIS FOR BOYS

BY J. PARMLY PARET

Author of "Methods and Players of Modern Lawn-Tennis"

With photographs illustrating good form in tennis, as posed by Harold A. Throckmorton, National Interscholastic Champion

CHAPTER I

FIRST HINTS FOR THE BEGINNER

THE most successful players of lawn-tennis have been almost always those who have taken it up when young. The steady growth of the game among school-boys, who learn to play while the muscles are still young and supple, has filled the ranks of the champions with those who learned to play in school. For tennis requires elastic, pliable muscles, rather than great strength, and more players suffer from being "muscle-bound" than from any lack of strength. It requires such quickness of action that powerfully built men are generally too slow of movement to be successful. Speed depends mostly on the perfect timing of the stroke, the momentum of the racket, and the swing of the body weight.

Many interscholastic championship tournaments have helped the school-boys to forge ahead so rapidly that recently the older men have had little chance for the highest honors. The present national champion, William M. Johnston, of San Francisco, is only twenty-two years of age, and but a short time out of school; the last champion, R. Norris Williams, 2nd, of Philadelphia, is only twenty-four, just graduated from Harvard, and only a few years ago a school-boy player of great skill. Before Williams, Maurice McLoughlin, of San Francisco, held the national title, and he, too, is in his twenties and held school honors only a few years back.

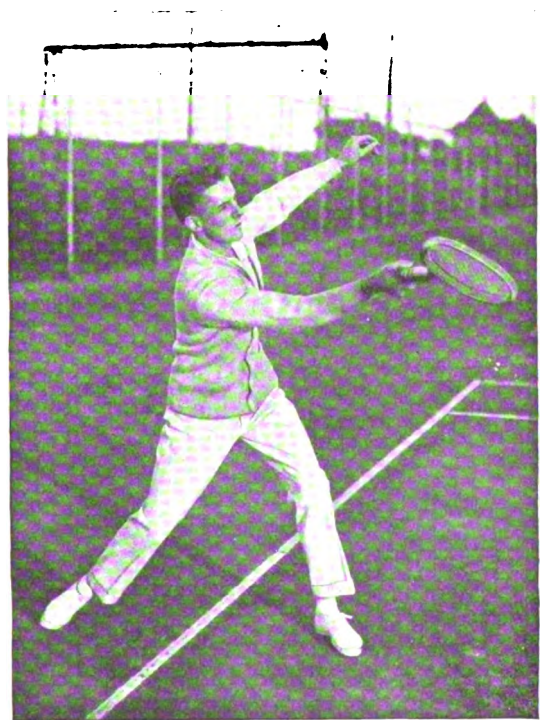
Last season, Harold A. Throckmorton, of Elizabeth, N. J., won the national interscholastic championship, winning in the finals from young Charles S. Garland, of Pittsburgh, and both of these school-boys have won high honors in large open tournaments. Garland won five or six different meetings open to all comers, while Throckmorton last year even forced Karl Behr, the fourth best player in America last year, to the full limit of five sets before he was beaten.

Throckmorton was selected as the best model for the pictures to illustrate good form in these articles, and he consented to pose for the photographer.

Good form in tennis is hard to describe. It is not necessarily the ability to win matches, nor is it always the most graceful way of hitting the

ball; it is rather the method of playing those strokes that have been shown by long experience to produce the best results with the majority of players. One too often hears an ambitious young player declare that any stroke that wins is good enough for him. Because McLoughlin won international matches in spite of using a cramped backhand swing, they are willing to copy his style in the hope of equaling his skill.

But success does not justify bad form. What

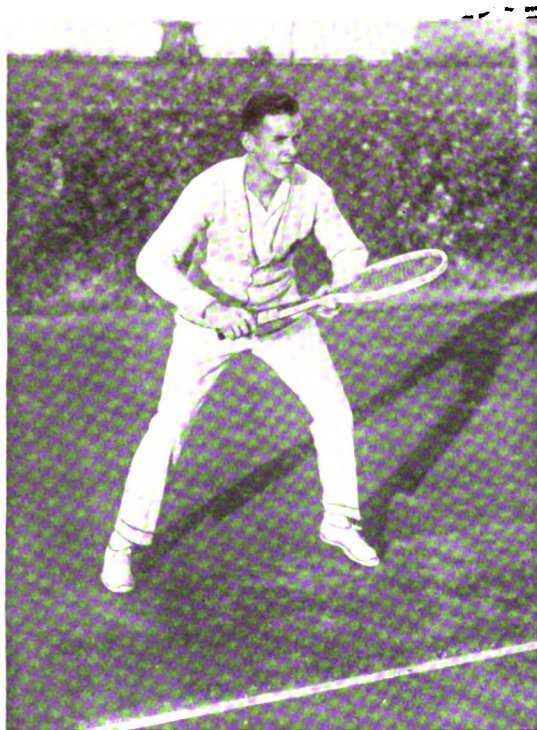


SHOWING FREEDOM OF THE BODY, ARMS, AND LEGS.

a McLoughlin or a Brookes might do with a bad style of play is not always the best for others to attempt. Ten would fail with such methods where one would succeed, while with good form ten would succeed while one would fail. A young player with a generous future before him might much better select, as a model of good form, strokes such as Johnston uses or those shown by Larned. With such a model, any healthy, active boy should be able to play tennis well after steady

practice. The game does not require height or weight or any unusual physical qualification.

But let no ambitious young player imagine that tournament success can be gained easily! It takes years of hard work to become a champion. Once the rudiments of the game have been mastered, and the elements of good form are clearly understood, it requires endless patience and practice, perseverance and then more practice, to learn to play the game really well. The boy who



READY FOR THE NEXT STROKE.

plays best is generally the boy who plays most, and, given other qualities fairly equal, constant practice will quickly carry one player ahead of his rival.

The selection of a racket and the necessary clothes must be considered carefully. Freedom and lightness are necessary in the clothing; and it is very important that the shirt-sleeves shall not bind at the shoulders to interfere with freedom of the arm, while the shoes must be neither too loose nor too tight. Looseness is as bad as tightness, for either will wear blisters on the feet. Shoes should be light in weight and fit snugly, canvas "sneakers" being perhaps the best.

The racket should not be too heavy for a young player. Older players prefer fourteen and a half

ounces as a rule, but some use rackets of fourteen ounces. For a school-boy, thirteen ounces is heavy enough, but if he is fairly large and strong in the wrist, thirteen and a half ounces will not be too great a weight. The handle should be small enough for the thumb to overlap the fingers around its end.

When one begins actual play, more progress will be made at first if balls are batted up against a wall or the side of a barn or house than if a regular court and net are used. The ball comes back much more evenly from a wall—which never misses a return—than from another player.

Stand well away from the wall, say twenty feet, and hit a ball up against it a hundred times in succession, trying each time to return the ball from the first bound without missing. This kind of practice will work wonders in teaching the young player to hit the ball and to calculate its flight in the air and its angles of rebound.

The racket should be held by the extreme end; no worse fault can be developed than a habit of holding the racket with a short grip on the handle. At first the end grip will seem to throw too much strain on the arm and wrist; but that is because you have not yet learned the cardinal rule of the game—to let the swing of the racket and its momentum do the work.

As a beginner you will probably try to push the ball rather than hit it, and the strain then becomes hard on the wrist. But as you learn the proper stroke and loosen the stiffness of the arm to let the swing and weight of the body do the work, then the longer grip will be a great help and you will be glad that you did not cultivate the bad habit of a short grip.

There are some differences of opinion among the best players as to the actual method of holding the racket in the hand, but the great majority (of Americans, at any rate) agree on the following grips, in which the position of the fingers gives the greatest possible freedom of the wrist and control in the direction of the ball.

For the forehand stroke, the first finger is spread slightly apart from the others, and the thumb overlaps it, as it is bent around the handle.

For the backhand stroke, one that is made with the ball on the left side (for right-handed players), the grip must be very different, and there is more difference of opinion here than in the simpler forehand stroke. The use of the thumb for the backhand stroke has been much discussed, but the best opinion in this country favors using it as a prop or support for the racket to stiffen it while making the stroke. It should therefore rest straight along the back of the handle ready to help in striking the ball.

The grip should be tight at all times, and the slightest relaxation while a stroke is being made is likely to ruin it, as the racket can easily twist in the hand if the grip is not tight.

The feet must be spread far apart when hitting the ball, and, speaking generally, in such relation to each other that a line drawn through them would show the direction in which the ball is to be played. Never stand around square toward the net to make a ground-stroke, for this weakens the power of the stroke. Instead of facing the net, turn so that the side points toward the net (the right for backhand strokes and the left side for forehand strokes).

When waiting for the next stroke, you should not only keep the feet spread well apart, but also have the knees bent slightly to be ready for instant action. When the stroke begins, get right up on the toes and spring at the ball.

When not making a stroke, balance the racket across in front of the body, the middle or "splice" of the frame resting in the hollow of the left hand, until you know whether your next stroke will be a forehand or a backhand one.

Keep your eyes on the ball everlastingly, too. Watch it from the very moment your opponent is ready to strike it until you have made your own return, and after as it flies through the air.

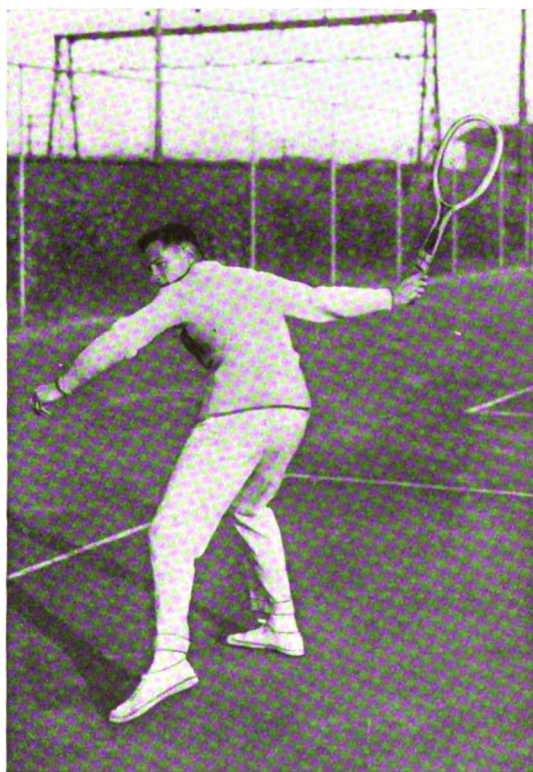
It is most important also that the player should "follow through" with his stroke, for on this hangs the speed and power of the play. The arm alone can strike only a feeble blow at a tennis ball, just as an axman would take a week to fell a tree if he did n't swing his weight and body with his ax. If he stood upright as he struck at the trunk, his ax would make little impression; nor would the baseball player be able to throw a ball very far without the all-important "follow through."

This is simply the action of swinging the weight of the body with the racket, so that its momentum is heavily increased when it reaches the ball and carries many times as much force as the arm alone could command.

Before the stroke is made the body is turned and swung back. It comes forward with a smooth, even swing as the racket rushes to meet the ball, and all the impetus of the arm, shoulders, and trunk is accumulated in the racket when it strikes, if the body-swing is complete. But the swing should not stop here, it is necessary to "carry through" long after the ball has been hit, and the body-swing follows after the ball as long as possible. This after-swing increases the power of the stroke and helps to guide the direction of the ball. Without it, the weight must be checked before the ball is hit and the blow greatly weakened.

Every motion, as far as possible, should be in direct line with the intended flight of the ball after it is hit. All side motions show a loss in power to the stroke, and the more directly the swing of body, shoulders, arm, and racket can be made to follow the line of the ball's flight, the better will be the stroke.

One of the greatest faults a player must overcome is the tendency to get too close to the ball. The playing arm must be kept well clear of the



THE BEGINNING OF THE FOREHAND DRIVE.

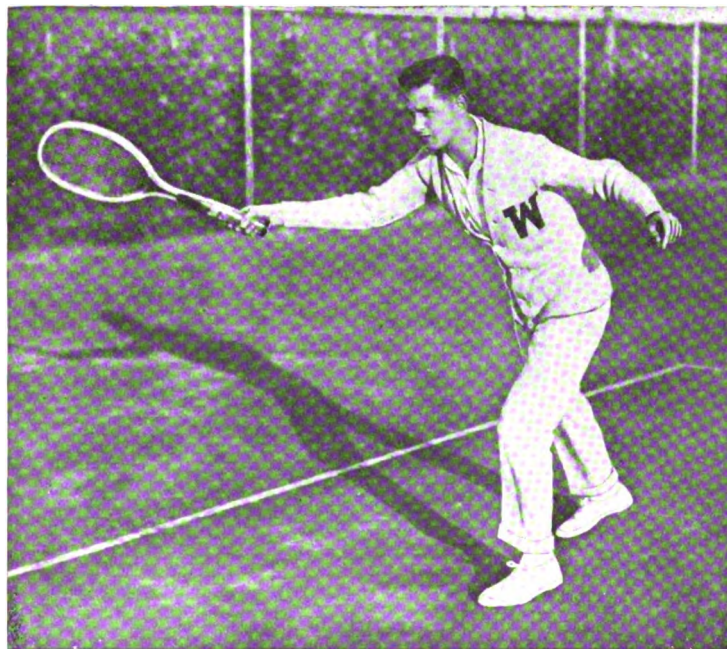
body to allow a free swing, and the ball must be met at a point well away from the body. It is better to lean out and meet the ball, to jump at it and bend forward and outward toward it, rather than to meet it standing erect.

Don't try to hit the ball hard at first; be content with moderate speed and learn accuracy and steadiness first. Speed will come later when you become so accustomed to hitting the ball every time without missing that you feel you have good control of the different strokes. It is far better to make a slow stroke well than to miss a fast one, and trying for speed causes more mistakes than almost any other fault in beginners.

Having mastered these first general principles, then, it will be safe to take up the strokes of the

game one at a time and see how they are best made; but before moving on to more intricate problems it would be well to go over once more the points covered here:

1. Clothes should fit loosely and comfortably, but the shoes should be snug in fit.
2. The new racket should be light and have a small handle.
3. Hold the racket by the extreme end and grip it tightly.
4. The feet should be far apart and in line with the play, the *side* of the body toward the net.
5. Give the arm a full, long swing and let the momentum of the racket do the work.
6. Keep your eyes everlastingly on the ball.
7. Keep away from the ball and give it plenty of room.
8. Swing the body with the play, and "follow through" after the ball with the weight.



THE MIDDLE OF THE FOREHAND DRIVE.

9. Don't try to hit the ball too hard at first; it is better to be sure of not missing and learn speed a little later.

CHAPTER II

THE FOREHAND GROUND-STROKE

IN teaching lawn-tennis strokes, personal help is far better than written instruction, but few school-boys have the advantage of coaching from an experienced player. Many could gain more,

perhaps, by watching another boy being coached than by reading the simplest directions.

I helped a school-boy friend of mine a few seasons ago to learn the game, and he improved so rapidly in his play that I took a great interest in his success. The ability to make himself pliable has a good deal to do with any beginner's success in tennis. Jack had that ability well developed, and, although he asked many questions, he seemed to absorb rapidly what I told him. I had already explained the first principles of the play, and he seemed to have picked up a good groundwork from my first lesson.

"Jack," said I, the first time we took up actual stroke-play, "you remember what I told you about not needing muscle to hit a tennis-ball fast? Well, now you will see that theory applied. You will see that it is the momentum of the racket and the swing of the body that do the work, not the muscular strength of the player."

It always encouraged my young friend when I reminded him of this feature that is common to all sports where a ball is struck. It gave him the confidence in himself that he lacked so much, for he was a frail, thin little lad who had despaired of ever making his college football team or rowing on the crew. But I had already half convinced him that he did not need the physical qualifications of an oarsman or a football-player to play tennis and golf well, and he had secretly determined to become a champion in one or both.

The stumbling-block of most young tennis-players lies in their failure to apply their weight at the right time, to swing the racket long enough before hitting the ball to get its momentum well developed.

"Now, as you see the ball coming toward you, Jack, you must figure in advance where it will bound in order to be sure of hitting it. Get well behind the ball. Don't under any circumstances get close to it. Stand far back—much farther than you think is right—and well out of line with its flight, so the arm can have free play to make a long swing at the side."

"But suppose the bound is shorter than I expect?" he said. "I won't be able to reach it."

"Yes, you will. Every stroke should be made on the jump. That is, you should lean forward,

and even *jump* forward, to meet the ball as you strike, and it is only necessary to jump a little quicker or a little farther if the ball does not bound as far or as high as you had expected.

"First of all, you must turn sidewise to meet it. Never play the ball with the racket in front of the body,—that is, toward the net. Keep the ball off at the side and far enough away to allow plenty of room for a long reach of the arm. Nothing ruins a good tennis-stroke more quickly than a cramped elbow, which is the result of getting too close to the ball.

"A forehand stroke is one made with the ball on the right side so that the arm has a free sweep at it, with the playing shoulder somewhat behind the blow, while backhand strokes are those made with the ball at the left side, with the playing arm partly across the body and the shoulder ahead of the ball."

"Suppose a boy is left-handed; does that make any difference?" he asked.

"Of course it does," I explained, "but the great majority of players are right-handed. All directions must be reversed for a left-handed player, for it is the side on which the playing arm meets the ball that makes it a forehand or a backhand stroke.

"The forehand strokes are much easier to play, and whenever the ball comes directly at you, and sometimes even when you have to jump aside, it is better to move to the left to bring the ball on the right side, so that it can be played with a forehand stroke.

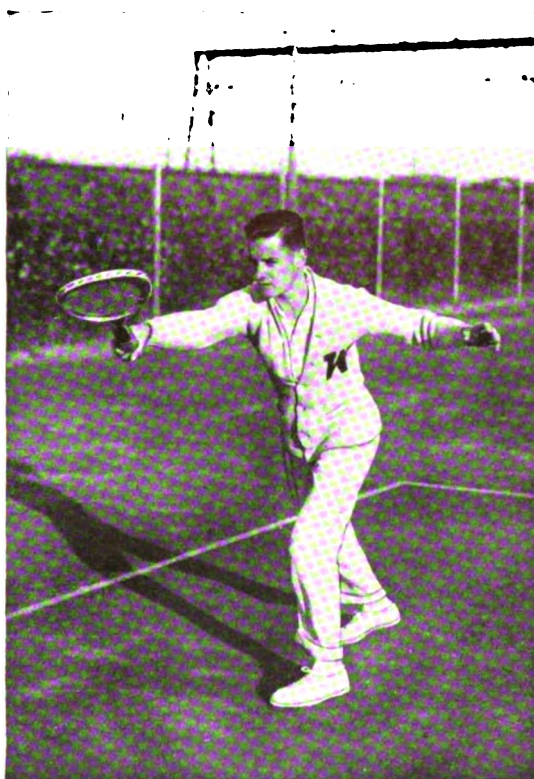
"For all forehand strokes, the left side should be turned toward the net as the ball approaches, and the right foot should be far behind the left, so that they are almost in line with the direction you intend to drive the ball. The weight should be thrown far back on the right foot as the ball approaches, and the racket swung back as far as the arm can carry it, long before it is time to strike."

"I can't seem to do that," said Jack, again. "I'm always afraid that I'll get the racket back behind me too soon, and then that I can't shift back if I mistake where the ball is coming."

"I know what you mean. I know the feeling, and nearly all beginners have the same trouble. They hesitate to draw the racket back until they can actually see the ball in the air in front of them—and then it's too late! Then they have n't time for a full swing, and the result is that they make only half a swing, and the stroke is cut so short there is little or no momentum in the racket, and the result is a fizzle.

"It is simply a matter of confidence. You can hardly go wrong by swinging back too early.

Long before the ball even touches the ground, the racket should start backward, and the earlier this preliminary swing is started the longer will be the stroke, and the less effort will be required to hit the ball hard. And if you should find the



THE END OF THE FOREHAND DRIVE.

racket drawn back too early, which is very seldom, an easy remedy is offered, for a slight pause at the end of the back-swing is inclined to steady the stroke somewhat, not to hurt it. Larned frequently paused at the back of his long swing, and Wrenn even cultivated that steadying of the racket before the actual stroke that drove the ball was started."

We practised awhile after this, Jack and I, and I found that the lad had absorbed what I had been telling him. His racket went back earlier and farther, and the ball came back harder to me each time he used a long swing. Soon a new light was borne in on him, for he stopped a minute.

"Now I see how the long grip on the racket helps me, too," he said. "The hardest thing I have had to learn is to hold my racket by the extreme end. The leverage is so great that it bent my wrist back when I held it by the very end. If I held it up in the middle, I could wait longer

before I swung at the ball, and I did n't miss it so often when I swung late."

"But you were making only a half-stroke, a push, or a jab at the ball, then, and you were using the muscles of your arm to do it, Jack. The ball did n't go fast either, and it could n't go fast from such a stroke if the strongest arm in the world hit it with only half a swing.

"Even at the risk of missing a good many strokes at first, take the racket by the end, swing back early, and then use a long free swing at the ball and the momentum will do the work; the ball will go away fast, and besides being hit harder, it will travel straighter in the direction you want it to go. But as you hit it, put the weight of the body in the stroke also. Swing forward as the arm comes on to meet the ball, shifting the weight from the right to the left foot, and let the weight of the shoulders and the body increase the speed and power of the racket until its momentum and force are so great that the ball is driven ahead fast with little or no muscular effort.

"But the swing must not be checked or stopped when the ball is hit. The follow-through that you hear golf-players talk about so much is just as important in tennis as it is in golf. The shoulders and body-weight should follow after the ball as long as possible. As it leaves the racket, the body should swing around and the weight shift all the way over to the left foot. The end of the stroke, with a bend of the wrist, brings the racket up over the left shoulder.

"Look at these pictures of Harold Throckmorton, the interscholastic champion, making his strokes, and you will get a better idea of the correct swing than I can tell you in words."

"But his racket seems to be bent over flat at the end of the stroke," Jack commented after studying the photographs for a few minutes.

"Exactly so; and that bend of the wrist gives the twisting motion, the 'top-spin' as it is called, that makes the ball fly fast, brings it down to the ground sooner than a straight-hit ball, and also enables the player to control its direction better. As the racket meets the ball, it should be beveled slightly forward, that is, with the top edge of the frame ahead of the bottom, so as to break the sharp impact of the ball with a glancing blow.

"As the stroke is made, the racket is drawn upward as well as forward, so that the strings are rubbed over the ball's cover, and the rough felt clings to the elastic surface long enough for the upward drag to brush the ball into a spinning motion as it flies over the net. This upward swing of the racket is continued, and it carries

the end of the stroke up over the left shoulder. If the swing ends lower down, opposite the chest, the ball will have less spin, and if it ends up in front of the head, the twist will be so exaggerated that much of the accuracy will be lost.

"Now the effect of this twisting motion, or spin, is to make the ball curve in its flight. The forward-spinning top of the ball meets with greater resistance from the pressure of the air above, and the ball curves downward unnaturally. This curve helps the player to keep the ball inside the court, and makes it harder for his opponent to volley well. It is the same thing with a baseball, and it is this same principle that enables the pitcher to throw a ball which curves in the air.

"There are also under-cut strokes in tennis, or balls that spin in the opposite direction, as well as those which curve down in their flight. A ball that is driven with an under-cut, or 'slice,' by a chop-stroke, as it is generally called, has the opposite effect. The bottom of the ball spins faster than the top, and the air-pressure from below has a tendency to keep it up longer in the air than is natural before its own weight brings it to the ground. These cut-strokes have a great drawback, though, because with them you cannot hit the ball so fast as with a drop-stroke, or it will go out of court."

"Has the cut-stroke any advantage over the one you described first, the ball that carries top-spin?" was the next interruption.

"Not one that would offset the disadvantage of its lack of speed. The chop-stroke is made with a shorter swing and the racket travels slightly downward in making the stroke. It meets the ball with the bottom edge extended, and the glancing blow reverses the effect of the other stroke, finishing off in front of the left knee. The shorter swing makes it possible to delay the stroke longer, and sometimes helps accuracy of placing, but the under-spinning ball is easier to volley, has a tendency to 'sail' out of court, and cannot be played fast for this reason.

"The skill of the chop-stroke player is limited, while that of the boy who uses top-spin has no limit. I would never advise any boy to learn the chop-stroke style. It is much more often used by men who have learned the game when much older, when their joints are too stiff to allow a long, free swing at the ball."

Jack was young enough, and ambitious enough, and pliable enough to follow good advice, and he started at once to practise the forehand drop-stroke, as this stroke is most often called, from the characteristic drop in the flight of the ball. I believe it is always safer to learn the forehand

stroke first, before beginning with the other more difficult plays of the game, so we postponed the backhand stroke for another lesson.

Before we finished our first lesson in actual play, however, I went over the ground once more with him, so that the most important points would stick in his memory:

"Remember, Jack," the lesson ended, "that it is the momentum of the racket, not the strength of your arm, that does the work.

Draw the racket away back until it disappears behind the shoulders; start the swing very early and make it full and long.

Jump at the ball as you strike, keeping well away from it as the ball approaches.

Meet the ball at the height of the hips, with all your weight in the blow, and then follow through with the racket until it has swung after the ball as far as you can reach.

"Don't forget to draw it up a little just as you meet the ball (in order to give the ball some top-spin), and rub the strings across its cover to make it twist in the air. Avoid the under-cut or chop-strokes, for the spin on such a ball makes it stay up in the air longer and tends to make it sail out of court."

(To be continued.)



THE TENNIS-PLAYER. A PORTRAIT BY LYDIA FIELD EMMET.



BARTOLOMÉ'S VELVET HAT

BY KATHERINE DUNLAP CATHER

BLACK-EYED Bartolomé Murillo was the happiest child in Seville. No more insults and times of disgrace for him, he thought; no more taunts from his playmates about being a baby because he wore the cap that was the headgear of very small Spanish children. He had a hat now, with a peaked crown and rolling brim; and because it was made of the finest velvet and trimmed with a silver band to match his suit, old Carmelita, who lived next door, said he looked like a young cavalier. It is a dreadful thing to be called a baby when one feels quite a big boy, and as the cap was responsible for the title, it was little wonder he was glad to put it aside.

"You shall have a hat like a man," his mother said when she gave it to him as his birthday gift that morning. "You are big enough to stop wearing the *niño* [baby] cap."

And Bartolomé was more glad than he had ever been, for as long as one wears *niño* clothes he will be called a *niño*, and he was tired of it.

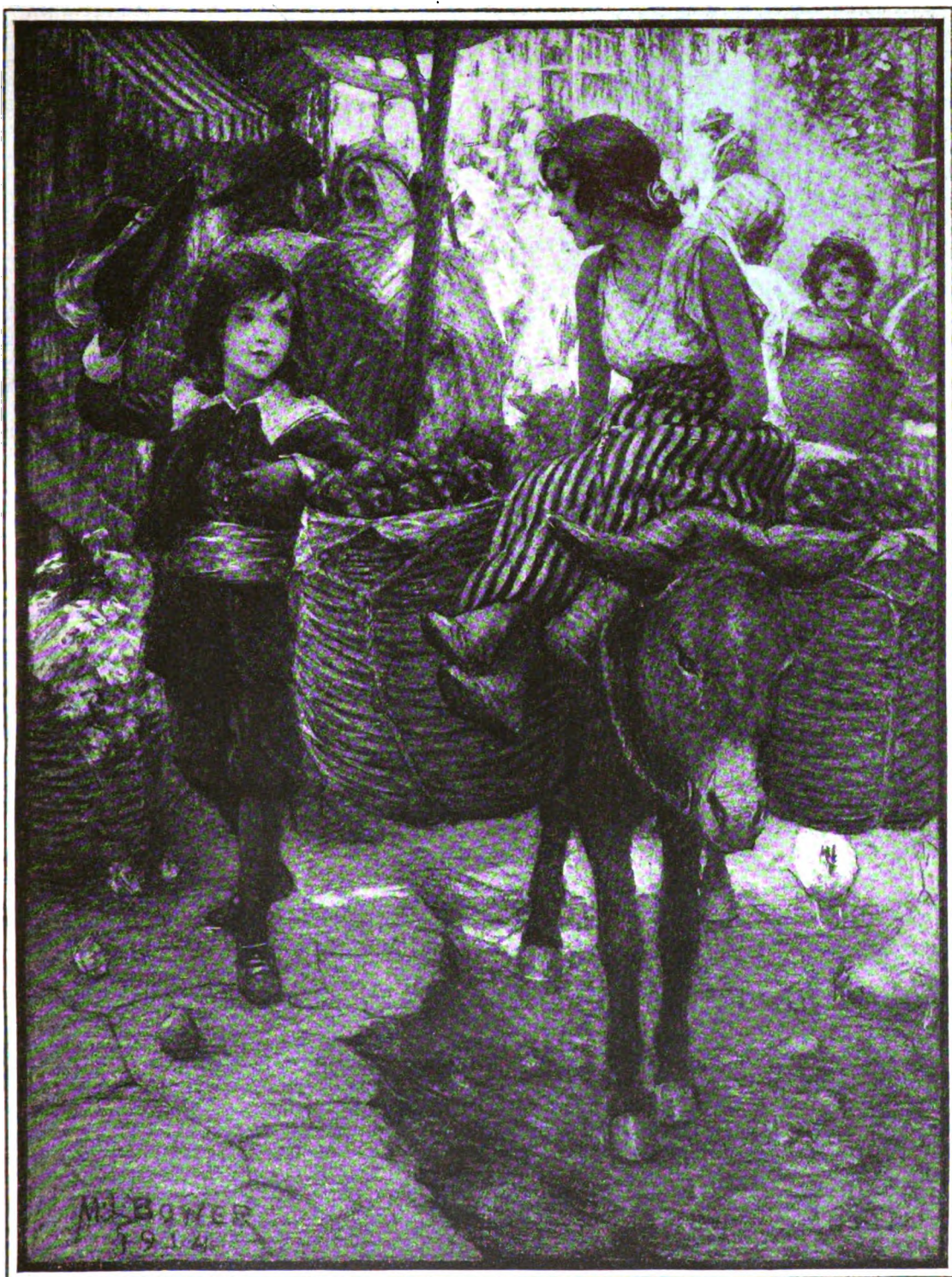
He went out into the street to look if any of his playmates were about, but not one was in sight; for it was August, when the sun shines with burning heat in southern Spain, and boys are fond of seeking the cool of the river. He wanted them to know that his cap belonged to the past, and that he could be called a baby no longer because of his clothes.

The heat had driven most of the people into the houses, which made Bartolomé sorry, for he was

so proud of the new hat that he would have liked all the world to see. He was sure they would think it as lovely as he did, although that was a very great mistake, for at that time such headgear was quite in fashion in Spain, and created no more of a sensation than Panamas do to-day. But he was too young to realize it, and whenever he passed a lady in her carriage, or a gaudily skirted market-girl with a red rose glowing in her shining black hair, he saluted with the air of a grandee. He did not see his friends, although he went far down the street, past gardens sweet with the breath of oleanders, and beyond the cathedral and the Giralda, rising like a fairy tower, to the bridge that spans the Guadalquivir; for while he was rejoicing over his present they had scattered about the city. So he turned back, reaching home just as his mother was starting to visit a friend.

"Stay here until I get back," she said as she adjusted her lace mantilla on her head and fastened it at the shoulders with golden clasps. "Your Aunt Eulalia may come at any time, and she must not be greeted by closed doors."

Bartolomé had meant to get something to eat and then go out into the street again, yet he did not mind much when told to stay at home. To have a wish come true as he had had that morning, is enough to make the day bright, even if everything else does not come one's way. So putting the beloved hat on the table, where he could see it, he began wondering what to do.



"WHENEVER HE PASSED A GAUDILY SKIRTED MARKET-GIRL, HE
SALUTED WITH THE AIR OF A GRANDEE."

Just above him on the wall was a picture of a child and a lamb, which, ever since he could remember, had been in that place. It was faded and stained by time, for it had hung in his mother's girlhood home before being brought into this one, and was one of the treasured possessions of the house of Murillo. As he looked at the bare-headed lad and then at his birthday present, he thought he would like it better if the boy had a hat like his own.

"And I'd rather play with a dog than a lamb," he thought. "Whoever painted that picture did n't know much about boys. I'm going to fix it."

So taking a piece of charcoal, he climbed up on the table where he could reach the picture, and began marking around the child's sunny curls. Then he went to work on the lamb, and in a little while the meek-looking animal was changed into a curly-tailed dog.

The cathedral bells pealed out the hour of noon, but Bartolomé did not hear. He was lost in his drawing; and when his mother opened the door, he was still busily at work.

Maria Perez looked at him with horrified eyes, and then at the picture that had altered so in her absence. Instead of the boy and the lamb she had known from childhood, a lad in a cavalier's hat caressed a saucy-faced dog.

"Oh, Bartolomé!" she exclaimed; "you have ruined it!"

But Bartolomé turned in surprise. He was not conscious of having done harm.

"I am sure the boy will be happier now," he said, "because he has a hat and a dog."

But Maria Perez shook her head and seemed much distressed; and when his father came home and found what he had done, the lad was locked in the cellar. So instead of going out where the boys could see his new hat, and greeting his Aunt Eulalia when she arrived, he had to stay in darkness and disgrace.

Evening brought the Padre Pedro, the wisest man in all Seville, and the good friend and adviser of the family. He was surprised at not seeing Bartolomé, for the boy loved him and often ran to meet him, and when told that he had been so bad they had had to lock him up, he could hardly believe it. Black-eyed Bartolomé, who was usually so good! It did not seem possible that he should need punishing so severely, and the old man wanted to know about it.

"Oh, good Padre!" Maria Perez said with tears in her eyes; "he has ruined my 'Boy and the Lamb'—marked it all over with charcoal."

Padre Pedro lifted his brows in surprise. "I did not think Bartolomé would do anything like that!" he said. "There must be some mistake."

They took him to see the picture, but when he stood in front of it, a look came into his face that was very tender.

"The blessed boy!" he exclaimed. "He was so happy over his own hat that he wanted the child to have one like it. I thought he had scratched and defaced the picture. But he meant no harm, I am sure. Call him, and let us see."

So Bartolomé was brought to tell his story to the padre, and as he came he wondered if he, too, would say he had been very wicked.

"Why did you do it?" the old man asked.

"I wanted the boy to have a hat like mine," came the earnest reply. "And I was sure he'd like a dog better than a sheep, so I changed that too. I did n't mean to be bad, Padre Pedro."

"I know it," said the padre, kindly. "And your father and mother know it, too."

Bartolomé was not locked up again that evening, but stayed in the room, where they made plans for finding him a drawing master.

"A boy who can draw like that must have a teacher!" Because Padre Pedro said this, and he was so very wise, Bartolomé's father and mother and aunt thought so too.

"We can place him with my uncle, Juan del Castillo," said Maria Perez, "for no one in Seville can teach better than he."

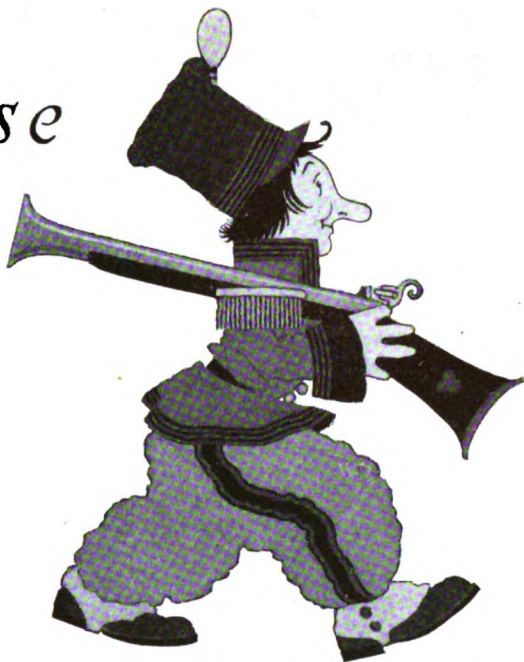
So Bartolomé Murillo began to study art, and, while he was still a boy, painted two pictures that people said proved he would be great. His parents no longer grieved because he had tampered with the family picture, for Padre Pedro declared he would be glad to have it in his study. So there it hung for many years, even after the old priest was gone and the figures were no longer clear, so that it looked just like a spotted piece of paper. But Murillo's paintings still hang in the world's great galleries, and the years have not faded them any more than they have dimmed the glory of his name. To this day they are the pride of Spain, and the people of Seville love to talk of his boyhood there, and of the time when he was a pupil of Castillo, who is remembered now chiefly because he was the teacher of Murillo.

If you are ever in Spain, go to the old town in the south that is still rich in memories of the Moor. And perhaps, some evening when the brilliant southern sunset touches the stucco houses with rainbow tints, and great folk in the balconies sit listening to guitars in the street below tinkling a sweet accompaniment to feet flying in a fandango, if you love the place well enough to try to make friends with its sunny-hearted people, some stately old cavalier or soft-voiced dame may tell you, as only they of Seville can tell it, the story of Bartolomé's Velvet Hat.

Hans the Wise

Being the Seventh of the Wonder-Box Stories

by
Will Bradley



ONCE upon a time there lived a Little Soldier who went to the wars and fought so bravely that it is a wonder he was not made a General.

When the wars were over, tramp, tramp, tramp, shoulder arms, off he marched home again, through the town gates, through the town streets, and into the very presence of the King.

"Good day to you," said the King; "you have been a fine Soldier, for sure and certain. My Royal Treasurer will now pay you your wages, and you are free to go whithersoever you will—throughout this town, or the next, or the one over yonder."

Then the King led the way, and the Treasurer followed, and after him came the Soldier; and they all entered the royal treasury, where were great carven and painted chests of gold and silver and precious jewels. So many chests there were in that room, it would have taken three whole days to count one half of them, and a clever mathematician would be needed to accomplish even that.

"Help yourself freely," said the King. "Fill your pockets with gold and silver and jewels; and when you have filled your pockets, fill your hat."

Yes, the King said those exact words; for you see the Little Soldier was of exceeding great bravery and had fought through the whole war, so the King, who was n't at all stingy, wanted to reward him generously.

"Humph!" said the Little Soldier. "Gold and silver and precious jewels are all very well for Kings and Queens, and folk who sit at home in silks and satins and do nothing but twiddle their thumbs; but of what good would they be to a Soldier who is about to start out and see the world? Would n't a body soon feel tired walking along the highway with his pockets full of heavy gold?" As for filling his hat, the Little Soldier would never think of doing that, for how could he wear his hat if it were full of gold, and was n't his hat made to be worn? And if he did n't wear it, would n't the hot sun beat down upon his bare head most uncomfortably?

No, the Little Soldier did n't care for gold

and silver and precious jewels; so he thanked the King kindly, and said, if it was all the same to him, he would just take the nice round white pebble that was lying in the corner over yonder, and that would be wages enough and to spare.

Of course, the King was quite willing to give the Little Soldier the round white pebble, for, as oft happens with Kings and Queens, and sometimes with other folk, he was glad to have an excuse to keep his gold and silver and precious stones, though what good they did him, stored away in the carved and painted chests in his strong room, is more than I can guess.

Well, after that it was n't long before eyes front, one foot before the other, down the streets of the town, out through the gate of the town and along the highway marched the Little Soldier, whistling a jolly tune and as merry a body as one might ever care to meet.

Not a penny did the Little Soldier have in his pocket, nor any other burden to carry upon his journey save only the round white pebble, which, no sooner did he reach the bridge that crossed a quiet pool than, *whisk!* away he threw the pebble, and watched it skip and dance across the water, making such ripples and circles on the still surface as were a joy to see. After that, the Little Soldier had not a single care or burden, and twice merry was the tune he then whistled.

As you will readily guess, the news of all this passed quickly from tongue to ear, so that ere the sun set not a soul in all that town, and but few in the town beyond, had not heard the news.

Such wisdom had seldom been known at that

time, and whereas the Little Soldier's name was Hans, and his comrades called him Happy Hans, now folk named him Wise Hans, or more often Hans the Wise.

Now it happened that in those days in Noodleburg there lived a man named Peter, who had so much of this world's goods he was called Rich Peter.

Rich Peter had one son who was called Young Peter.

Also there was in Noodleburg at that time one Herr Kleimer, who had a daughter named Katrinka.

When he was but a lad, Young Peter had looked over the hedge and seen Katrinka. After that he looked again and yet again. Then he went through the hedge and came to Katrinka and said, "How do you do?" And Katrinka looked up from her roses, not a bit surprised, and said, "How do you do?" Of course, they were soon good friends, and in a while it was whispered they were to be married.

Herr Kleimer did n't say no to that proposition, for Young Peter was as fine a lad as any in all Noodleburg. But—of Rich Peter it must be

calling down upon himself the wrath of Rich Peter, and of how this helped Katrinka and Young Peter, you shall now hear, for it happened in this wise:

"Sir," said Jacob, innkeeper of the Black Cock, to Hans one day as the Little Soldier sat sunning himself on a settle beside the inn door, "Herr Kleimer has heard of your doings over the hills yonder, how you fought in the great wars, and of your clever wisdom, and yesterday he said to me, 'Jacob, if Hans the Wise comes stepping along this way, tell him I have a word or two for his ear.'"

"Good day, your Honor," said Hans, a few minutes later when Herr Kleimer answered his *rap-tap-tap* at the front door. "Friend Jacob, over the way—"

"Oh, yes!" said Herr Kleimer, interrupting: "you are Hans the Wise! Come right in; I have something to show you."

Through the house Herr Kleimer led Hans, into a big oak-paneled room where were windows overlooking the garden.

"Take a peek into the garden and tell me what you see," said Herr Kleimer.

"Oh," said Hans, "there are rows of hollyhocks, beds of tulips, a few fruit-trees, a pebbled walk or two, and a bit of greensward—a fine garden, for sure and certain! Yet no fairer than many a one we have back yonder."

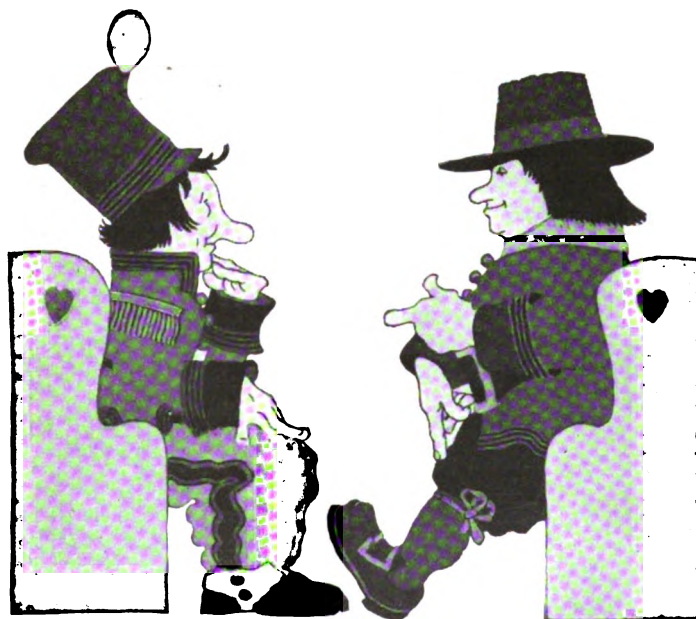
That is the way it was with Hans, who was always so proud of his own town he never could find its equal elsewhere.

"Look again," continued Herr Kleimer; "that is not all there is to be seen."

"Prut!" said Hans, laughing; "if you mean the lad and the maid in the arbor yonder, why, you may spy upon them yourself if you will; but as for me, I have other fish to fry, so I must be taking my cap and jogging along."

"Wait a while," said Herr Kleimer, not the least particle put out at the words of Hans. "You are for bringing your bread from the oven

half baked. Listen: here is Young Peter coming to see my Katrinka one day a week for nigh a year, and only to-morrow they were to be married. Then what happens but a message must be sent me from Old Peter to say Young Peter is going to enter the army and so the wedding is off for a year, mayhaps two years, or even three.



THE INNKEEPER GIVES HANS A MESSAGE.

told he made such a wry face as I never want to see again, for he was stingy and thought, "Now will the lad be asking for a few silver pennies to set up housekeeping."

Thus matters stood when the Little Soldier reached Noodleburg. And of how he used his great wisdom to solve a difficult problem, thereby

A fine state of affairs this is, and the cake all frosted and the guests invited!"

Hans rubbed his nose reflectively. "My, oh, my!" said he; "that certainly is sad. I wish the matter might be mended." Then he looked again at the lass, and could not but see the tears in her eyes, and she so pretty it was all a shame.

"Ah!" said Herr Kleimer, "now you have found the plum in the pudding, and have but to pull it out. See. Rich Peter lives in that fine house in the hills just outside the town; and last night robbers came and stole away all his treasure. That is why he sends Young Peter to the army; he says the lad is now too poor to marry. Could we but capture the robbers and get back the treasure, all would be well. You are a clever one, Hans; will you help?"

"Oh, yes!" said Hans, hurriedly. "Which way did the robbers run?"

Herr Kleimer looked troubled. "That I cannot tell," said he; "the soldiers have searched high and low, and no sign of the robbers can they find anywhere."

"Humph!" said Hans. "Now that is too bad. We cannot, of course, capture the robbers and get the treasure until we first find them."

Herr Kleimer opened wide his eyes and looked at Hans in wonder. "I never thought about that!" said he. "You certainly are a clever one, Hans! 'T is no marvel you are called Hans the Wise. Well, now I suppose we shall have to give up!"

"Oh, no," said Hans, "we won't give up yet; for, as my Colonel used to say, 'it is never too late to try'; so I will just be stepping along to Rich Peter's house."

"No need to be stepping, Hans, when I have a fair coach in which you may ride. Wait a moment, and I will go with you."

So it happened, then, that ere long Hans was seated beside Herr Kleimer on the soft cushions of the fine coach and riding off to Rich Peter. Along beautiful roads they went, beside fields where the ripening grain bent to the breeze in long lines of rippling golden waves. Past fruit-laden orchards and around a little fringe of woodland the way led, coming anon into the fields surrounding the house of Rich Peter.

All this while, little had been the talk of Happy Hans, whose mind was much on the matter before him. And to say he saw no solution of the problem is to tell only the truth.

"I wonder what is wrong ahead," said Herr Kleimer, as a bend in the road allowed of a sight being had of the gate to Rich Peter's, before

which there was gathered an excited group of perhaps a dozen servants and farm-hands.

"We shall soon see," said Hans; and even as he spoke the coach drew near enough for them to hear some of the words that were passing to and fro from one farm-hand to another in the group about the gate.

How Hans did laugh then, when he had an



HERR KLEIMER TELLS HANS HIS TROUBLE.

inkling of the trouble! And while he laughed the coach stopped, and he and Herr Kleimer got out.

This is what had happened:

One of the farm-hands had just returned from the forest with a load of freshly cut bean-poles which were so long and protruded so far on both sides of his wheelbarrow that, try as he would, he could not wheel them through the gate.

That was a comical predicament for sure and certain, and Hans laughed until the tears stood in his eyes like great pearls.

As for Herr Kleimer, he was now quite provoked, and looking at Hans in surprise and wonder, he said:

"Why do you laugh, Hans? This is a serious matter. Here are such long bean-poles they won't go through the gate, and how is the man ever to get them into the garden? That is just like Rich Peter! He must always be saving and stingy, and here he has built the bricks of his wall so as to leave only this narrow gate. Now we must send for the carpenter to come with his saw and cut off the two ends of the bean-poles.

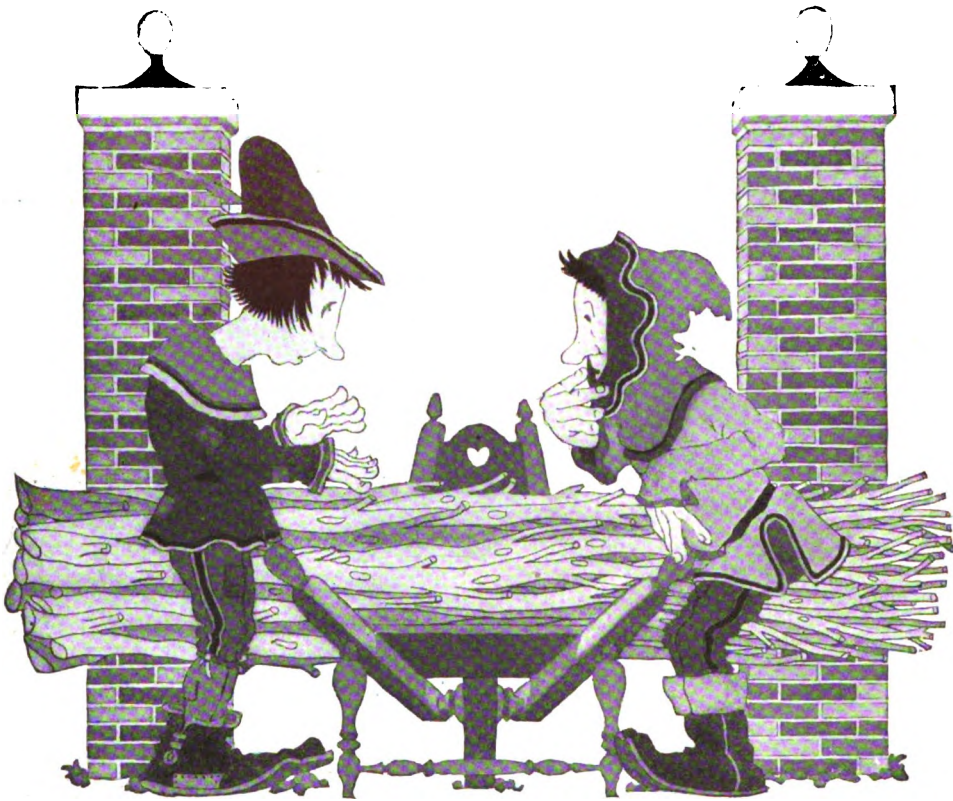
No, that would never do, said the farm-hand,

for then the poles would be too short for the beans.

But for all Herr Kleimer and the farm-hand spoke so seriously, Hans never once stopped laughing. At last, however, he tried to speak.

shortened and his farm-hand from a scolding. You certainly are a clever one!"

When Herr Kleimer said Hans had saved the farm-hand from a scolding, he told what he believed to be the truth. Imagine his surprise,



THE FARM-HANDS MEET WITH A DIFFICULTY.

"*Ha, ha, ha!*" said he; "did ever a body see anything so comical? And did ever a body see people so stupid! Oh me, oh my! such stupidity I never saw before! If the load of poles is so wide it won't go through the gate, why don't they tear down the bricks on one side of the gate and make the opening wider?"

For a moment no one spoke; everybody looked at Hans in wonder. Then one and all gave a mighty cheer, and next minute were working happily throwing down one brick after another as fast as ever they could.

Herr Kleimer, his lips trembling, and almost with tears in his eyes, now turned to his companion. "Hans," said he, "I humbly apologize; I humbly beg your pardon, and crave forgiveness for speaking as I did. Who besides a clever one like yourself would ever have thought of this fine way out of such a serious trouble? You have saved Rich Peter's bean-poles from being

then, a few minutes later, to see Rich Peter come tearing down the walk, waving his long cane and shouting loudly like a crazy person.

"Stop, you numskulls! Stop! Stop, you silly dolts! Why are you tearing down my beautiful wall? Who ordered you to ruin the front of my beautiful gate?"

Those were the words Rich Peter spoke, and never were orders more quickly obeyed. But they came too late, for now scarce one brick was left standing upon another, and that side of the gate seemed little better than a heap of rubbish.

"Who ordered you to do this crazy work?" again cried Rich Peter, as he came running up to his men, and brought down his cane so hard that, had the fellows not quickly scattered, some one must needs have felt a warm whack dusting his jacket.

"I did," said Hans, speaking up boldly; "I bade the men tear down the wall."

"Yes," quickly continued Herr Kleimer, "and a clever idea it was too, Peter, as you are bound to admit when I tell you the load of bean-poles was too long to go through, and, but for Hans the Wise, might have stayed here in the road forever and a day."

Hans felt happy indeed, and proud also to hear these words of praise from Herr Kleimer, and sat with a stiff back and his head held high, never once deigning to look upon Rich Peter.

"Well," raved Rich Peter, still as cross as two sticks, "I do not know which is the craziest, you or Hans or the farm-hands; but I guess you all are buds on the same branch, and perhaps there are others in the world as stupid. But as for me, I would n't tear down the gate; I would merely turn the poles around and carry them through the gate lengthwise."

"My! my! yes, that is so!" said the farm-hands.

"Yes, that is true," said Herr Kleimer.

"Why did we not think of that ourselves?" said they all. All, indeed, except Hans the Wise, who was so proud of what he had done that, still holding his head high and looking neither to the right nor to the left, he heard never one single word of what was said.

"Well," spoke up Rich Peter, "the eggs are broken and can't be mended; so go in with the load; and, Herr Kleimer, will you be good enough to attend me to the house and remain to dinner? As for this crazy fellow whom you call Hans, my servants can tumble him into the dungeon, and in the morning we will give him a warm birch twigging and send him off humping."

"Oho!" said Hans. "So that is the music to which I must dance, is it? And I am Crazy Hans, am I? Perhaps by and by you will think I am Clever Hans. I—"

But he did n't have time to say any more, for Rich Peter had already ordered his men to seize him; and the burly fellows, thinking haste might save them a good drubbing for their own part in the affair, quickly had him bound; and before he

realized what had happened the key turned in the lock and there he was alone in the dark dungeon.

"Who would ever have thought a body could be so stupid?" said Herr Kleimer, forgetting how he had a moment before praised Hans for his cleverness.

"Yes," said Rich Peter, "there are certainly some very stupid people in this world." As he spoke he looked at Herr Kleimer and laughed.

"I wonder why Rich Peter laughs," thought Herr Kleimer; "perhaps it is because he is happy, or perhaps he has captured the robbers and regained the treasure. I will ask him."

But what Herr Kleimer had for an answer was only a shake of the head. No, the robbers were not captured, and by Rich Peter's glum looks he thought little hope existed of getting back his treasure. "The wedding must be postponed,



RICH PETER DISPLAYS HIS WRATH.

Herr Kleimer," he said; "for now that Peter is a poor lad, he must enter the army and stay there until we have riches again, which, with a few good harvests, I hope will come soon. It is strange what can have become of the robbers, for, though we have searched high and low, never a sign or a track of them can be found anywhere."

"That is too bad," said Herr Kleimer. "And

now that Hans the Wise is in prison there is no more hope."

"Did you expect that simpleton to get back my treasure?" asked Rich Peter.

"Yes, I did," replied Herr Kleimer, "for in some ways Hans is very clever."

By this time they had entered the house and could smell the savor of good things a-cooking in the kitchen.

"I have a fat capon on the spit before the fire, Herr Kleimer," said Rich Peter; "soon we shall have dinner."

Meanwhile, Young Peter had bidden farewell to Katrinka and set forth for home, putting one foot before the other slowly, for so sad was his heart that his legs must needs lag.

Katrinka watched Young Peter until he was lost to sight on the highway, then, with tears in her eyes, she turned and entered the house, wondering if the lad would be killed in the wars, and if she would never see him again.

That was a sad way for two young people to be feeling on what should have been the eve of their wedding, and no mistake, especially with the cake all frosted and the invitations issued. There were some in the town that said Rich Peter was a hard, crusty old man, who might have shared what he had left with Young Peter, and so made the lad and lass happy; while others whispered that 't was likely Rich Peter had more than one penny left, and they even doubted robbers having taken any of the treasure, but thought Rich Peter had hidden it away, being too stingy to give any to Young Peter that he might marry Katrinka.

However this may have been I do not know, for 't is always so that there are some people must ever have a word or two to say on all such matters.

One thing was very true, however: the wedding must needs be postponed and pleading would be of no avail. No one knew this better than Young Peter, whose lagging steps brought him at last to the tumble-down gate.

"Oho! what has happened here?" said he, his surprise at the pile of stones making him for the moment forget his own troubles. Then he hurried off to the house and soon was hearing the whole story.

My, but Young Peter was provoked when he heard how Rich Peter had treated Hans! "Release him at once, I pray you, Father," he said; "he intended only help and not harm, and a shame it is to us for so treating him. Please release Hans, and I will myself go and rebuild what has been torn down."

That certainly was a very kind way for Young

Peter to speak; and never even waiting for an answer, he set forth to begin the rebuilding.

Rich Peter pulled a wry face over these words, I can tell you, and it was plain he did not like the way matters were going.

"Hold, lad!" he called, leaping from his chair and running after Young Peter. "This is no labor for fine folks; I will have my men rebuild the gate in the morning."

Young Peter heard no part of what Rich Peter said, however, for already he was hurrying past the door and through the courtyard, reaching the gate before Rich Peter, followed by Herr Kleimer, had come from out the house.

Meanwhile, Hans was in the dungeon, wondering what would happen next. He did not know how to account for such treatment. "That Rich Peter is certainly a numskull," he said, "but some time he—"

Hans did n't finish that sentence, for now there came a great racket of shouting and cheering outside, and the next minute the dungeon door opened and Hans found himself lifted to the shoulders of four stout men and borne out to the courtyard in triumph.

Now the first thing Hans saw was Young Peter dancing up and down like a crazy person, while in the arms of Rich Peter reposed the brass-bound treasure-box.

"Oh, Hans!" cried the happy Herr Kleimer, running forward and grasping his hand, "you certainly were a clever one to order the tearing down of the gate. See! Young Peter found the treasure in a little hollow pit which had been dug just underneath the bottom bricks at one edge of the gate and so was completely hidden when the bricks were put back in place. This was where the sly robbers had concealed the treasure-box, and Peter never would have found it if you had not ordered the gate torn down. Now Katrinka can be married to-morrow!"

As Herr Kleimer predicted, so it happened, and as fine and happy a wedding that proved as ever a body would wish to see. Nothing there was too good for Hans, and every notable in the town was glad to shake his hand.

No one ever discovered the robbers, and Rich Peter never made much effort in that line. Indeed, there were some good folk who said he even forgot to thank Hans for finding the treasure; and any one with half a look could see how he had little joy at the wedding, so that Herr Kleimer's good dame wondered would his sour face curdle the cream. However, Young Peter and Katrinka were too happy to mind that; and when they were happy, that was quite enough for one wedding, don't you think so?



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JINGLES

BY LEROY F. JACKSON

THE THIEVES

TIBBITTS and Bibbitts and Solomon Sly
Ran off one day with a cucumber pie.
Tibbitts was tossed by a Kensington cow,
Bibbitts was hung on a bramble-weed bough,
And poor little Solomon,—what do you think!
Fell head over heels in a bottle of ink.

CAPTAIN TICKLE

CAPTAIN TICKLE had a nickel
In a paper sack;
He threw it in the river,
And he could n't get it back.
Captain Tickle spent his nickel
For a rubber ball,
And when he cut it open
There was nothing there at all!

JOLLY JINKS

JOLLY JINKS, the sailor-man,
Went to sea in an oyster-can.
But he found the water wet;
Fishes got into his net;
So he pulled his boat to shore,
And vowed he 'd sail the seas no more.

A TOE RHYME

TASSLE is a captain,
Tinsel is a mayor,
Tony is a baker-boy
With 'lasses in his hair,
Tipsy is a sailor
With anchors on his chest,
And Tiny is the baby boy
Who bosses all the rest.



A SUMMER SHOWER—GALLANTRY IN ELFLAND.

THE SWIMMING EVENT

BY GEORGE C. LANE



You



fellows are worse than a lot of dubs at this swimming business. You act as though you were about as fond of the water as a dormitory kitten. If I had known you were n't going to make any better showing than this, I would have done my best

to keep swimming off the list of events at the meet next week.

"That 's a perfectly lovely swimming-suit you 've got there, Williams," continued "Professor" Whitman, "but it won't help you any. There 's no hope for you unless you cut out that fancy stunt of yours and get down to real swimming. As for you, Jenkins, if you ever have any ambition to acquire speed, you 've got to forget that twist you give your neck and shoulders every stroke you take; there 's too much lost motion there. Reach out, man, reach out! Never mind appearances. Get speed! Make every stroke tell for all there is in you.

"Come on; that 's enough for this afternoon."

The swimming squad, comprising four boys, picked from a class of twenty candidates to represent Watkins School in the aquatic event at the big annual track-meet with their ancient rival, Fleetwood Academy, had been receiving their regular afternoon coaching and discipline from

the school's athletic instructor, "Professor" Whitman, the very youthful-looking coach, just graduated from college, who was also one of the Latin teachers at the school. (The athletic instructor was always "Professor" at Watkins.)

The boys returned to the gymnasium, a fine stone building at the lower end of the campus and within a few hundred feet of the lake shore, leaving the instructor sitting on a bench near the spring-board in a rather gloomy frame of mind.

A boy, who had been watching the practice from the bank of the lake, approached, made a noise as though seized with a cough, and broke in upon the brown study of the instructor.

"You don't seem to think much of your class in swimming, Professor Whitman."

"Eh, what 's that?" asked the professor, without seeming to pay much attention to the boy.

"I say, you don't seem to have much hope for the school, as far as the swimming event is concerned."

"Hope? No, I should say not! Why, Fleetwood 'll have them left at the first stake. They have n't a chance, even. And a great deal depends on this event, too. The schools are pretty evenly matched in the other events; and if we want to come out ahead this year, we 've got to take that quarter-mile swimming race. It 's hardly too much to say that the fate of the whole meet may hinge upon this race, Willis."

"I should have called Williams a good swimmer," said Willis.

"Well, yes, but he 's not good enough. The trouble with Williams is he 's trying to do too much. I can count on him for the hundred-yard and the hurdle, but I wish he 'd stay out of the swimming. I 'm trying to make him see it without telling him in so many words. He 's a rather stuffy lot, you know, as a swimmer."



"GIVE ME A PLACE IN THE SWIMMING EVENT, WILL YOU, PLEASE?"

"Give me a place in the swimming event, will you, please?" Willis blurted out the request with a suddenness which, coupled with its apparent absurdity, brought the instructor to his feet.

Professor Whitman looked the boy over with a glance that seemed to take into account his weight, his strength of arm, his chest measure, and the probabilities of endurance that might be in him. Willis, standing there before him, with his long slim legs and a great quantity of wrist and ankles beyond his clothes, was uncomfortable under the scrutiny. He looked at the professor through his nickel-rimmed spectacles, which over-

study had made necessary ever since he was twelve, and waited, scarcely daring to hope for the answer.

"Why, Willis, my son, who 'd have thought it? That you, the grind of the class, should have athletic aspirations fluttering in your bosom! Now, if you had asked to compete in a contest for making a translation of the Odyssey, or writing a thesis on the fourth dimension, I should not be surprised; but you, Willis, the little old man of his class, asking for a place in the swimming race! What made you?" asked the instructor, banteringly.

Willis, instead of answering, turned with flushed face and started away.

"I say, Willis!" called the instructor. "Just a minute; come back here."

Willis returned to his position near the bench.

"I beg your pardon," said the instructor. "It was only that you surprised me so completely. I 'm really glad to welcome new material—that might be promising," he added dubiously. "Can you swim?"

"Swim? Do you think I 'm crazy altogether?" Willis replied warmly.

"Now, now, not too fast! I don't mean to ask can you keep afloat, but can you *swim*? Can you start out with a dozen or so, all straining every muscle in their bodies and working with every bit of strength and wind they 've got to reach the finish first—can you start out with them and stay? Can you plug away at it, with some husky chap, or perhaps several of them, just a little ahead of you whom you know you can't pass unless you do a little more than possible? Can you plug away at it under these conditions and make good? You know you 'll break your heart trying to find out what it costs to make good. Second prize is the booby prize for you, if you are in earnest. You can't take any second prize and make good."

"Yes, sir; I know it, sir. If I enter, I shall go after that first prize," said Willis, enthusiastically.

"You 'll go after it, yes; but will you get it?"

Professor Whitman believed he saw promising stuff in Willis, so he had been saying all he could to discourage him, this being his method of shaping his material.

"I 'll finish first or bust!" Willis replied, grinning.

"Well, show up for practice with the boys at five-thirty to-morrow afternoon, then."

"But that 's the trouble; I can't come then. You see, sir, I 'm waiting on table in Pratt Hall, and I can't get away at that time."

"When do you expect to do your training, then, I 'd like to know?" asked the instructor.

"Before breakfast, sir. That 's my only chance."

"Well, well; I did n't know you could get a boy in Watkins up before breakfast," remarked Professor Whitman, jestingly.

"Look here, Willis," he continued, "I guess I 've been making rash promises. You 've got a few minutes, have n't you? Just run and slip into your swimming togs right now and give me an idea of what you can do."

Willis complied with alacrity. There were only a few persons about the lake, a fact which Willis was glad of for the reason that he did not want his aspirations known just then and this opportunity for personal instruction was just what he had hoped for.

"Now let 's see what sort of start you can make."

Willis plunged a header from the long float on the edge of the lake, came to the surface a few seconds later, and started off splendidly.

"Too deep; don't dive too deep. You lose time; and time, you know, is of the essence. Also, don't try that stroke at the start. It 's the best you 've got, I suppose, so save it for the finish; you 'll need it then. Take the breast stroke most of the way; you 'll do well with it, I should say. That shake of your head when you come up to the surface looks very effective; but leave it out; it takes time. You 're training for a swimming-race, you know, and your business is swimming."

The professor continued his criticisms and advice for a quarter of an hour; then assuring Willis that he would give him a place, he turned to leave, with new hope for the swimming contest.

"And one word more, Willis. I think I can trust you—yes, I 'm sure I can trust you with this word of caution." The instructor hesitated a moment. "Unless I 'm mistaken in you, Willis, you 're the sort that might overdo himself. Permanent injury may be caused by over-exertion, and especially in a swimming contest. There 's a limit to what the heart can do; it 's a terrible grind, Willis. And mind you use your head. Be sure you know your limit, and, in the final effort, be sure that you hit it squarely—no more, no less!"

Three days later, and two days before the big meet with Fleetwood, the names of the contestants in the different events were posted in the gymnasium.

The moment that Willis had dreaded had arrived. As he was passing through the gym, on the way to the dining-hall, a group of fellows stood scanning the program.

"Now listen to this!" said one of them, excitedly. "Swimming contest: Williams, Jenkins, McElroy, Watson,—and Willis!"

"Willis! Willis!" echoed the others.

"It 's a misprint," declared Williams, laughing.

"Sure, a misprint," they all agreed.

"There he goes now! I say, Miss Walter Willis; does this mean you?" demanded Jenkins, severely.

Red to the ears with anger and embarrassment, Willis was dragged over to the bulletin-board.

"Is that you?" asked Jenkins, again, indicating Willis's name with questioning forefinger.

"Yes, sir, that 's me," said Willis.

"Miss Walter Willis, the human fish!" cried Williams.

"And all the water that he had was in his mother's pail," another quoted irrelevantly.

"The only swimming I ever heard of his doing was crossing the Hellespont with Leander in his dreams the other night," said McElroy, who was Willis's room-mate.

"Oh, you Leander!" howled the group in unison, as Willis, breaking away from his tormentors, ran from the building.

The new entry in the swimming event was the chief topic of conversation the rest of the day.

The morning following, the unheard-of happened: Willis flunked his Latin recitation. As he was struggling hopelessly through the bewildering lines the boy next him whispered:

"Swim out, Leander; you can do it!"

"Wade in!" another encouraged.

But it was no use; he failed miserably, and "Professor" Whitman understood.

The instructor had noticed that Willis had been the object of much fun-making since his name had been posted, but he only smiled. "Let them tease him," he said to himself; "it all helps."

Field day and the annual battle between Watkins and Fleetwood arrived, a perfect day in early June. The colors of the contending schools bordered either side of the campus in brilliant display; class and school yells went up enthusiastically and almost continually as the events of the day proceeded. Each number of the program was contested with a zeal which was shared alike by participants and onlookers; and the results of the different events showed how evenly matched were the track teams of the two schools.

The first for the hurdle, the quarter-mile run, the broad jump, and the shot-put went to Fleetwood; while the high jump, the mile run, the pole-vault, and the hundred-yard dash, the last won handsomely by Williams, were captured by Watkins. In the matter of points Fleetwood had scored two more than Watkins; and so, as the coach had predicted, the fate of the meet depended on the swimming contest, which counted five for the winner and two for second place.

The lake, swept by a strong west wind for its entire length, a matter of over a mile, was choppy and promised difficult swimming. The course, which began and ended at the float at the western end, was marked off by flagged stakes, dividing it into four sections of practically one hundred yards each. At the turning-point, which marked half the distance, a boat was moored, in which two of the judges were stationed. On each side of the course were boys of both schools in gaily rigged canoes and rowboats; but by far the biggest crowd had taken positions on each side of the float at the finish.

The ten contestants ran across from the gymnasium to the accompaniment of loud yells of both encouragement and ridicule.

McNamara, who had won last year for Fleetwood, a rather fat young person, was the center of attention everywhere as the squad approached the lake.

A score of calls greeted the contestants when they took their places at the edge of the float, waiting for the pistol.

As it happened, Willis was placed next to McNamara on the Fleetwood side of the float. The contrast in build caught the crowd at once.

"Are you ready?" the voice of the starter broke in upon the shouting.

Crack! They were off!

Willis, profiting by his recent instructions, had taken a shallow dive that brought him to surface sooner than all the others and in advance of them. He began at once the business of swimming so that every stroke would tell; not even looking to one side, he kept his eyes fixed on the white flag that marked the turning-point, and swam for it. Using his long steady breast stroke with calm, calculating perseverance, unmindful of the fact, as announced by the Fleetwood crowd, that McNamara had taken a splendid lead, with Williams and Jenkins crowding him hard, he maintained his rate of progress unruffled.

At the finish of the first quarter he held a place well to the rear of the procession along with two Fleetwood boys.

"Get a move on there, Doctor!" they called to him from the canoes.

If he heard, he gave no indication that he noticed them.

Williams and Lewis, several yards ahead, with Jenkins trailing close, fought hard for the lead, alternating their method of progress by the use of the breast stroke and the crawl. They worried and fussed each other in a manner that was beginning already to tell against them, with the result that Willis cut down the distance between himself and them by several feet. At the turn

Willis held fourth place, Jenkins third, Williams second, and McNamara, ten yards ahead of Willis, was still heading the procession.

Now came the fight. Down the course, with the wind favoring them, it had been comparatively easy; but with the trip back, bucking a chop that sprayed their faces at every stroke, the real work commenced.

The yelling had ceased. This swimming event now promised to be of more interest than had been expected.

Steadily Willis plugged away, holding the reserve he knew he would need for the finish. McNamara had turned over on his back and was kicking for wind. Williams forged ahead for the lead.

"Ah, there he is! Now he's coming! Side-track yourself, there, Slat, before Hanson runs you down!" shouted a Fleetwood boy from the side-line.

And then abreast of Willis, with a splendid stroke, one of the Fleetwood squad, who had been lagging, came driving on.

"Oh, yes, there you are, indeed!" said Willis to himself. "I was wondering when you were going to show up."

The two swimmers looked in each other's eyes a moment, and each read the same salutation—the challenge to the finish.

It was the hardest thing that Willis had done yet, to let this man go past.

"He is using up some of his reserve to do it, though. Use your thinker, old boy," Willis told himself. "Steady, now!"

It was a splendid race, and to the onlookers it seemed as though almost any of the ten had a chance. Williams, half-way between the turn and the beginning of the last quarter, was being crowded out of the lead by this new peril, Hanson, the hope of Fleetwood and its pride. McNamara, who had already done his best, had given way grudgingly to both Williams and Jenkins; and Willis was surely cutting down the space between him and the leaders. The others pressed hard on Willis, and two of them managed to pass him in a spurt. But Willis did not give them a thought.

"Cling to him, Williams! Hang on, Jenkins! Stay with him!" encouraged the Watkins boys, whose hope was still with Williams and Jenkins.

But they were both splashing now and blowing hard, while Hanson, a yard in advance, was cutting through the chop with a telling persistence that maddened them. Inch by inch he drew away from them while Fleetwood yelled, jubilant.

The last marker had been reached, with Willis matched beside Jenkins and Williams and Han-

son, and a hundred yards between them and the finish.

"Now, Willis, let out for all there is in you!" He was still doing his own coaching.

Changing at once from the breast stroke to a long overhand reach with his right, he began the spurt—a spurt which he knew must last until he had reached the very limit of his endurance. With the first half-dozen strokes he had left Jenkins and Williams behind and seemed fairly to leap through the water.

Abreast of Hanson in the next few strokes, he forged ahead, while his breath came in short, fierce gulps that did not satisfy.

Not a sound from the tense crowd that lined the course and waited the finish at the float. Not a word of encouragement was offered these two, for they did not need it.

Hanson, recovering splendidly from the surprise of Willis's fine display of reserve force, regained his position a little in advance. On they came with a speed never seen at Watkins, almost neck and neck, a continually increasing distance making between them and those behind. But that little space between Willis and Hanson—could he never overcome it? Willis asked himself. He had never counted on this—this grinding, unrelenting exertion.

"More than possible; you've got to do a little more than possible." Professor Whitman's warning flashed on his brain. How true it was! How his heart pumped and pounded against his breast!

"You'll break your heart trying to find out what it costs to make good.—Second prize is the booby prize for you, if you are in earnest." The words came back to him in the bitter reality of their meaning. He understood now; but—it was a little more than possible, he told himself.

"Can you plug away at it, with some husky chap just a little ahead of you—always just a little ahead, and make good?"

No, he could n't! What was the use? He was tired and sick. The muscles of his arms and legs begged him to stop! If he could only have a second—to run the cram out of his hands! If he could only breathe!

Was Hanson feeling like this? Was Hanson capable of doing just a little more? he wondered.



"HIS HAND TOUCHED THE FLOAT, THE FINISH-LINE, TWO STROKES AHEAD!" (SEE NEXT PAGE.)

The thought spurred him on. With the pitiable scrap of energy that seemed left to him he struggled to outstrip this sturdy pace-maker beside him.

"Now, Willis! Oh, Willis! Get in ahead of him! You can do it!"

The Watkins boys were pleading with him.

"Willis, Willis, you 've got to!"

"Can't you see it 's impossible?" He wanted to shout it at them; but there was no breath left for words—no breath for anything. If he could only fill his lungs, just once! His legs—what use were they? A leaden weight was pulling at his arms; his hands would close, in spite of him.

"I 'll finish first, or bust!" It was his promise. Could he keep it? Why had he made it, when he had been told it would be more than possible? Could he keep it? Trying to was not enough. "The limit—no more, no less!" He must—he would!

Gulping fiercely for one last breath to feed the

final effort, he pounded the water to a foam with his feet and legs and reached out ahead with that bit of reserve, which, unconsciously, he had withheld for this moment. He seemed rather to go on than through the water. Four powerful strokes brought him flush with Hanson; six more, and his fingers touched the finish-line, two strokes ahead!

Eager hands dragged him onto the float, while Watkins went wild with ecstasy! "Did—we—win?" he gasped, as Professor Whitman bent over him.

"You won for old Watkins—handsomely, too! And you were quite sure it was more than possible, were n't you, Willis?"

NONSENSE VERSES

BY CAROLYN WELLS

POEMS EVERY CHILD SHOULD KNOW

STRIKE! for your altars and your fires!
In days of Auld Lang Syne,
Whose flag has braved a thousand years,
And I will pledge with mine

When the drum beat at dead of night,
The consul's speech was low:
"Shoot if you must, this old gray head!
On the reef of Norman's Woe.

"Come forth! come forth! ye cowards all!"
Oh, say, what may it be?
"Lie there!" he cried, "fell pirate, lie!"
A scornful laugh laughed he.

Alas, alas, my Cumberland!—
But hark! that awful sound!
When coldness wraps this suffering clay
Like noises in a swoond.

The walrus and the carpenter
Came peeping in at morn;
The flame that lit the battle's wreck
Was yellow, like ripe corn

A wet sheet and a flowing sea;
The fevered dream is o'er.
I never loved a dear gazelle,
Loved I not honor more

Next morn the baron climbed the tower,
And smit with grief to view
The daughter of a hundred earls,—
The soldier's last tattoo!

Earl March looked on his dying child,
Whence all but him had fled,—
Before Vespasian's awful throne,
Behind the Tuscan's head!

'T is not alone my inky cloak
All buttoned down before;
Kind hearts are more than coronets
That round my pathway roar.

The combat deepens. On, ye brave!
A-hunting of the snark;
The plume of Henry of Navarre
Was bit off by a shark!

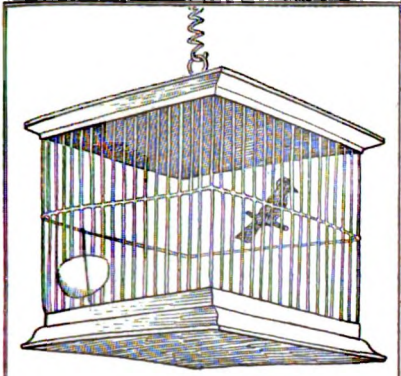
NATURE UP TO DATE

"I CALL it rather pushin',"
The angry farmer said,
"When a Cabbage wants a cushion
On which to rest its *head*!"

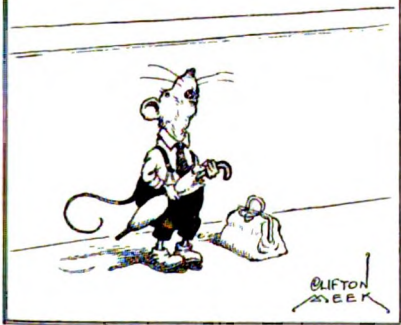
"My nerve it sorter joggles,
It fills me with despair
When Potatoes must have goggles
To shield their *eyes* from glare!"

"The up-to-date Asparagus
Requires a folding-*bed*;
And 'Kindly oil our *springs* for us!'
The young Spring Onions said!

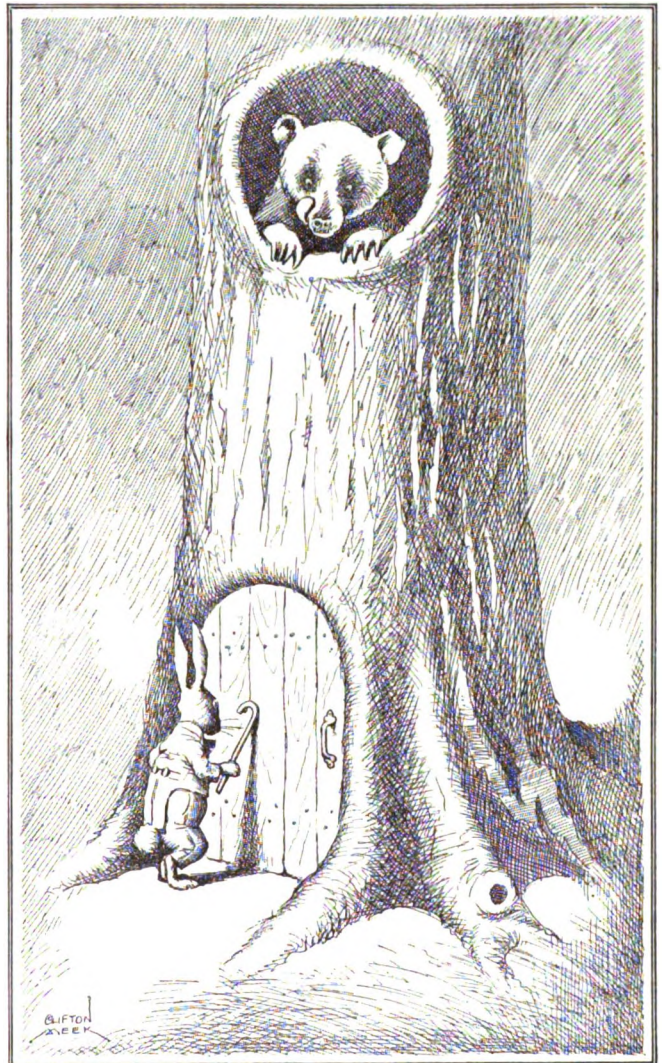
"But worse than all these hearings,
I hear with sighs and groans
My Corn demand jet *ear-rings*,
And long-distance telephones!"



SAMMY SNAIL: "YES, FATHER WAS TAKEN SICK LAST WEEK
AND I 'M HURRYING FOR THE DOCTOR."



REUBEN MOUSE: "HOW MUCH
LONGER WILL I HAVE TO WAIT
FOR THAT ELEVATOR,
I WONDER!"



"AH! A GUEST FOR DINNER!"

ON THE BATTLE-FRONT OF ENGINEERING

BY A. RUSSELL BOND

Managing Editor of "Scientific American," and author of "With Men Who Do Things"

CHAPTER XII

BUILDING PIERS FOR 1000-FOOT SHIPS

JACK sat gazing out of the window. He was on the twenty-seventh floor of a downtown office-building in New York, and his eyes rested on a wonderful panorama; but his mind was elsewhere. Somehow, this perch carried him back to Eagle Bluff, where he had found Perry and a new life.

Two weeks had elapsed since he had arrived in the big city. Mr. Barto had been stricken with typhoid fever on the very night of their arrival, and Perry had insisted on taking Jack into his own home. The first week was spent in seeing the wonders of the city, but finally Jack had protested.

"Really, Perry," he said, "you're giving me an awfully good time, but I must get to work. Why, I have been loafing ever since I left Copper Center. I'm going to hunt for a job. I'm going to be an engineer, and so I have got to get into some engineering office. I don't care what I earn, so long as it is enough to keep me going while I learn something at a night school."

Perry had chimed right in with him. "Say, Jack, we are going to school together, and you can board at our house."

"Fine," Jack had answered, "all but boarding at your house. I can't afford to pay what that is worth, and so I must go somewhere else."

"Then I'm blest if I don't board with you if Dad will let me; at least, while the folks are away for the summer."

So here they were in an engineer's office. It was the influence of Perry's father that had obtained work for them in the same place, although the boys did not know that. It was Saturday noon; their first week's work had ended. There was a lull as the men waited for their pay-envelops; and while he waited Jack stared vacantly at the busy harbor spread out beneath him.

He was brought back to present realities by a hand on his shoulder and Perry's voice saying: "Hello, Jack, what are you looking at? Oh, I see—that ocean liner. She's pretty big—a good six hundred feet long, I should say."

"Yes," chimed in another voice, "and it won't be long before we have thousand-foot boats." It was a young man named Harris who spoke, craning his neck to see over their heads. "They are getting so big," he went on, "that it is a problem

what to do with them. You know the city is building thousand-foot piers up at Forty-seventh Street; and our company has the contract."

"That's rather queer, is n't it?" said Perry. "I thought we went in for foundations mostly."

"We do," answered Harris, "but this is really a foundation job."

"Yes; I suppose driving piles is foundation work of a kind, but that is not my idea of foundation work," Perry answered.

"What is so wonderful about it?" queried Jack.

"Listen. You can't go on building piers farther and farther out into the river, or you will soon choke it. A thousand feet is nearly a fifth of a mile. The river is only about four thousand feet wide there, and if you take another thousand feet for a pier on the opposite bank, there would n't be much room for a thousand-foot ship to manœuvre without crashing into one pier or the other. The War Department keeps an eye on waterways and won't let shipping encroach too much on the channel. At Forty-seventh Street the War Department has set a dead-line eight hundred feet from shore, and no piers must project beyond that line."

"But then how could they build piers one thousand feet long?" interrupted Perry.

"I was just getting to that," said Harris. "Since they could not extend the piers a thousand feet into the river, they had to run them back into the land, see?"

"Into the land?"

"Yes; they tore down a lot of buildings on the river front, storage buildings, stables, gas-tanks, old shacks, and so forth, and what we are doing is moving the shore-line inland a couple of hundred feet. That's where the hard work comes in"

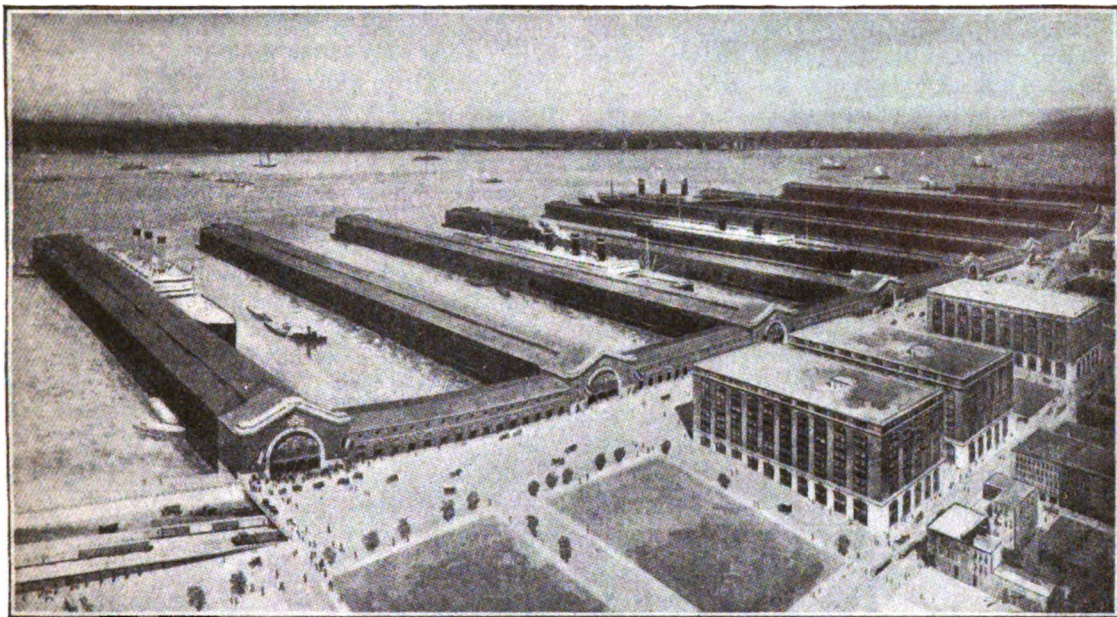
"Why, it ought to be a simple matter to build the piers on the land and then dredge out the earth between them, I should think," said Jack.

"It sounds very simple," said Harris, "but you see these big liners draw a lot of water, and we have to have a depth of at least forty feet there at low water. Now it happens that we strike rock long before we get to that depth; and, unfortunately, there is no simple way of digging out solid rock without getting right down to it and blowing it up with dynamite. So we are building a great coffer-dam, the biggest one in the world, to keep the river out until we prepare this new bed for it. I suppose you know what a coffer-dam is?"

"Oh, yes," said Perry; "we were on the Thunder River job and built a big coffer-dam there."

"Yes," said Harris, "I have read all about that job, and it was a difficult piece of work, too; but it was a mere peanut-shell to this one. Why, boy, this coffer-dam is the biggest and deepest the world has ever seen. It uncovers a space three

does n't matter whether we have a stream five feet wide, or a sound five miles wide, or an ocean five thousand miles wide pressing against that wall, the pressure will always be the same for a given depth." They were interrupted by the arrival of the pay-envelops, which immediately monopolized the attention of every one concerned.



Courtesy of "Scientific American."

THE PIERS FOR THOUSAND-FOOT SHIPS, AS THEY WILL LOOK WHEN COMPLETED.

hundred feet wide by eight hundred feet long and at least forty feet deep below water-level at low tide; and at the toe of the dam we have to go down sixty-eight feet below high-tide level before we get to rock. You can imagine there is some pressure against that wall with no way of bracing it against the opposite side, as you did in your little coffer-dam."

"I suppose the pressure must be tremendous, with the whole Atlantic Ocean pushing against it," remarked Perry.

"Well, well, my boy! Do you mean to tell me that you have n't learned that yet?"

"What?" stammered Perry.

"Why, that the volume of water has nothing to do with the pressure."

"Why, I supposed it was the weight of the water that made the pressure, and the whole Atlantic must weigh more than Thunder River."

"Yes," replied Harris, "but it is spreading its weight over a much greater bed. All we need to consider is the depth of the water. At a depth of sixty-eight feet the pressure at the bottom is nearly thirty pounds on every square inch. It

As Jack and Perry were about to leave Harris spoke to them again. "How would you like to go up to the piers with me after lunch? That's the way I spend my Saturday afternoons—looking around at different engineering jobs. I learn much more than I ever could from blue-prints."

The boys gladly accepted this invitation.

When they arrived at the job, they found that the work looked surprisingly different from what they expected. What they saw was a big lake, with merely a wall separating it from the river.

"Why," exclaimed Jack, "I thought you said the bulkhead was being built along the shore, but it's 'way out in the river!"

"It was built along the old shore-line, but they have been dredging this out while they were building the dam."

"What did they do that for?" inquired Jack. "Would n't it have been much easier to haul out the dirt with steam-shovels, where they could see what they were doing?"

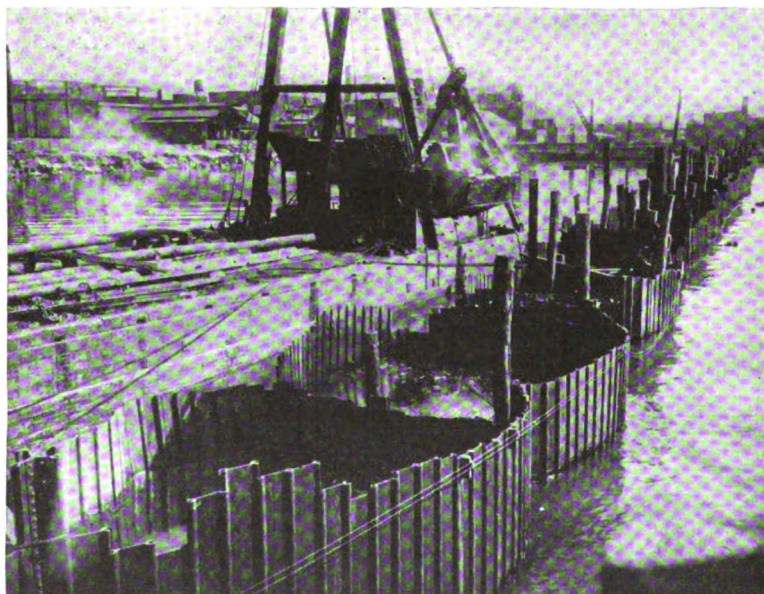
"Oh, no; dredging is much cheaper and easier. Those buckets scoop up enormous quantities of mud with very little effort, and it costs but a

trifle to move a scow full of mud, while the same loaded on cars would fill a whole train."

The bulkhead wall was made of steel sheet-piling with interlocking edges, like the piling used at Thunder River. There were two rows of piling, tied together at regular intervals by cross-walls which divided the structure into a series of cells. Each cell bulged out almost in the shape of an ellipse. Stone had been piled at each side of the dam, and the cells themselves had been filled with sand and clay to solidify the structure.

"It was some little job driving those steel piles," announced Harris; "they are seventy feet long, each in a single piece. Once in a while a pile would strike an old buried timber, and then it took a long time to drive it through—sometimes an hour or more of pounding with a steam-hammer. That put the pile under a terrible strain, and it was quite likely to be bent out of shape. Several piles gave way because they had been so bent as to lose their grip on the piles at each side.

"But how can they tell whether they have struck rock or wood?"



THE BULKHEAD WALL OF INTERLOCKING STEEL SHEET-PILING.

"Easily. The pile rings when it strikes rock."

"What, through all that mud? I should think the mud would damp the sound."

"No, it does n't," declared Harris, "I have heard the ring myself. You can easily tell the difference between that and the dead sound it makes when the pile strikes wood."

The basin within the bulkhead had been more than half unwatered, but up at the northern end

they were having a lot of trouble. Here a single row of piles led inland from the cellular coffer-dam well in shore. Under these piles the water was evidently running in a stream of dangerous proportions. The line of piles was being badly distorted.

"What 's the trouble?" asked Mr. Harris of one of the men.

"Why, you see it 's hard to get a tight seal between the ends of the steel piles and the rock. Every once in a while a pile will land on a point of rock, and that will leave a gap at each side of the point that the water can run through."

"Is n't there any way of stopping it?"

"Sure! We are calking the leaks now from the outside."

"From the outside? How do you get at them?"

"Do you see that wooden pile they 're driving? That 's how they are doing it. They are just making a hole in the ground with the pile. Pretty soon you 'll see them pull it up; not quickly, or the mud would flow right in and fill up the hole; but they 'll pull it up very slowly, so as to leave

a good hole all the way down to the bottom. Then they put a lot of sawdust and rubbish into the hole, and drive the stuff down with a follower, or blunt-ended pile. That will squeeze out the plug of sawdust and stuff into the mud, and make it close up the leak under the pile. It was much worse a few days ago, but they have stopped most of the leaks now by calking them in this way.

"Look! There 's something interesting," said Harris, pointing out into the river. "Do you see those big blocks of concrete? That 's where the end of one of the thousand-foot piers is going to be. You know, all that part inside the coffer-dam is going to be of solid concrete, while the rest of it will have to be supported

on wooden piles. It 's about a hundred and fifty feet down to rock out there, and of course they can't expect to use piles as long as that."

"Do they usually have to run down to rock with the piles?" asked Jack.

"Well, they would like to when they go through such soft mud as this. Why, they can drive ninety-foot piles clean out of sight with a few blows of the pile-driver. They are trying a

scheme of lagging the piles, and then capping a bunch of them and noting how they withstand the pressure.

"What do you mean by lagging?" Jack inquired.

"Why, they bolt four pieces of five-by-six-inch squared timber on each pile," explained Harris. "That gives a much bigger hold of the piles on the mud. Sixteen of those piles are fastened together at the top, and a platform is laid on them. Then those great blocks of concrete, weighing altogether two hundred and twenty tons, are laid on the platform. In one of the test groups the piles are farther apart than in the other, and they seem to be doing better work."

"Why?" asked Perry. "Is it just because they are farther apart?"

"Yes; the piles have a grip on the mud that tends to pull the mud down. This strain on the mud must be greater near the pile than it is farther away. If the piles are too close together, the mud strained by one pile would also feel the strain of the next one, and would not be so able to bear up as if the piles were farther apart.

"By the way, talk about mud! I will show you a job next week that will open your eyes. That is one of our jobs, too, and it is no easy job, either."

At the shore side of the excavation they had already started blasting away the rock. Instead of using pneumatic bench-drills, they were boring deep holes with a well-drill. A heavy steel shaft, with a chisel-like cutter on the end of it, was dangled on a rope, so that when the machine was at work, it hammered the rock and chipped out a hole in it; the hole was six inches in diameter and about forty feet deep. Into this was put a charge of about one hundred pounds of dynamite—enough to fill the lower four feet of the hole, which was then filled with sand. After that, another charge was put in and tamped with sand; and finally a third charge. When the blast was fired, the rock heaved up, and was shattered without flying into a thousand fragments, because the blast was buried so deep.

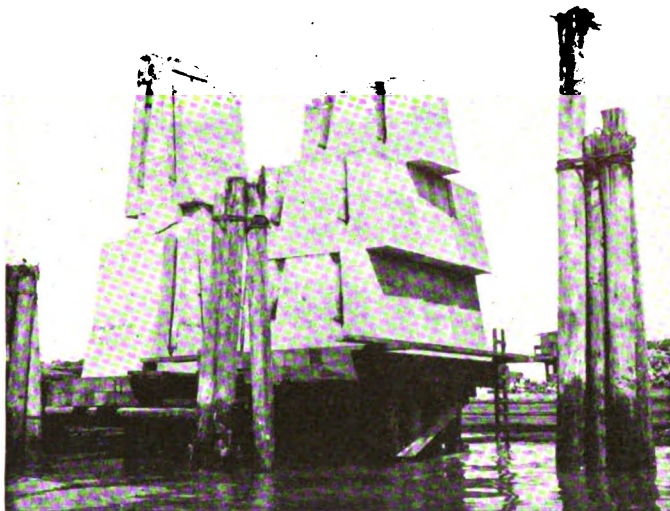
"After they get this all excavated, what then?" asked Perry.

"That's the worst of it," said Harris. "Most engineering work is built to stand, and the engineers can point with pride to it for years and years; but this coffer-dam, although it is the biggest the world has ever seen, and although it took months and months to build it, will all have

to be torn down again and every trace of it removed."

"Will they blow it up with dynamite?" asked Jack.

"Not by any means," declared Harris. "Why, there are hundreds of tons of valuable steel there. No, every piece of that sheet-piling will have to be pulled up again! It is well worth saving."



TESTING A GROUP OF PILES WITH A 220-TON WEIGHT OF CONCRETE BLOCKS.

CHAPTER XIII

DAMMING A SEA OF MUD

THE following Saturday, Harris piloted Jack and Perry up to the wilds of the Bronx. It seemed to Jack an endless ride, and all within the city.

They were nearing the end of the trolley line when Perry noticed a peculiar change in the landscape. In place of the green meadows on either side, there were vast patches of dirty gray, out of which projected the blanched trunks of dead trees. It was as if a volcano had showered its hot ashes over them, quenching their lives, scaling off their coats of bark, and covering the earth about with a dull drab shroud.

"What do you call that?" cried Perry.

"It is some of the mud we excavated from the river," explained Harris. "We filled in some of these low meadows around here."

"But what has happened to the trees?"

"The mud killed them."

"Mud? Why should it?"

"Because it's salt mud. The East River is salt (it is an arm of the sea, you know), and of course the mud is salt, too. In time, I suppose

the rains will wash out the salt and the mud will be covered with grass, but those trees are done for, all right."

The trolley-car came to an abrupt stop.

"Here we are at the end of the line!" cried Harris. "Now, if we are lucky enough to find Mr. Slocum, I guess he will let us take the boat over to the bulkhead."

A bank concealed the pier from view. Up over this the boys hurried, and saw a couple of men sauntering down to a motor-boat that tossed on the swell of a passing steamer. In another moment the three breathless runners had joined them.

"Say, Mr. Slocum, would you mind taking us over to the bulkhead?" asked Harris. "These are two new boys that the company has just taken on, Jack Winans and Perry Carpenter, and I am showing them what the company is doing."

"Good idea," agreed Mr. Slocum. "The best way to learn engineering, or 'most anything else for that matter, is to get right out and see the work with your own eyes. Jump in, boys."

It was a short run to the bulkhead—about a thousand feet.

"Well, boys," said Mr. Slocum, "I suppose Harris has told you about the queer job we have here?"

"I have told them very little as yet, sir," replied Harris. "You know I have n't been here in a long time, and I don't know just what you are doing."

"You did n't tell them we were building a dam?"

"A dam!" exclaimed Jack. "Where?"

"Why, under that bulkhead."

Perry and Jack were puzzled.

"It is one of the queerest jobs I ever had anything to do with," went on Mr. Slocum. "You know, what we are trying to do is to build a quay with at least thirty feet of water alongside it at low tide, so that big ships can tie up to it. But the water is very shallow here. There is a great mud-bank that slopes out very gently to the channel. The mud is anywhere from twenty to forty-five feet deep, and in some places it is sixty-five feet down to hard bottom. Well, the idea is to dredge out the mud between the channel and the bulkhead and fill it in behind the bulkhead, in that way building new ground for the warehouses and factories and such buildings that are going to stand here where you see nothing but water now. That sounds simple, does n't it, boys?"

"Yes, sir," nodded Perry.

"But that mud!" went on Mr. Slocum; "why, it is so soft that we could n't use a bucket-dredge

on it; we had to draw it up with a suction-dredge. The only way to keep the bottom clear of mud on one side of the quay and to keep the ground from sinking on the other side is to build a dam to hold back the mud-fill."

"That is what this bulkhead is for, then, is n't it?" asked Jack.

"Oh, no, this is just a wall of piles; the mud would flow through it freely."

"But could n't you drive a wall of sheet-piling along the bulkhead?" asked Perry.

"My dear boy, you have n't any idea what a pressure there would be on that wall. This bulkhead is just built to carry the quay wall. To keep the mud back, we are building a dam of rock."

The boat had reached the bulkhead by this time.

"What an awful tangle of piles, Mr. Slocum," said Harris. "They look as if they had been put in helter-skelter, without any rhyme or reason."

"They do look like a mad jumble," admitted Mr. Slocum, "but, you know, every one of them has been placed with the greatest care and precision. Some of the piles are driven on a slant so as to take the thrust of the stone-fill that may bear against the bulkhead. Each pile is marked and numbered, so that the men can sort them out and bring them back into alignment when placing the capping-timbers on them."

The party stepped out upon a lighter that was moored alongside the work. There was a hoisting-engine on board, with which heavy timbers were lifted and the piles were hauled into place. It was marvelous how order was brought out of that jungle of piles.

"Why do they get so badly out of line?" asked Jack.

"That question has an interesting answer," replied Mr. Slocum. "Before we drove this line of piles we dredged out a channel down to hard bottom. Now, here is a funny thing: before we dredged, soundings showed us that hard bottom lay about forty feet below the low-water line. But when the mud had all been dredged out, we found that the bottom was only thirty-seven feet below the low-water level. How do you account for that?"

"Do you mean the bottom actually rose three feet?"

"That 's what I am asking you," replied Mr. Slocum.

"I suppose, when you took the load of mud off the bottom, it expanded or rose or something," suggested Perry.

"Do you know the answer?" asked Mr. Slocum, turning to Harris.

Harris shook his head. "It 's too much for me," he said.

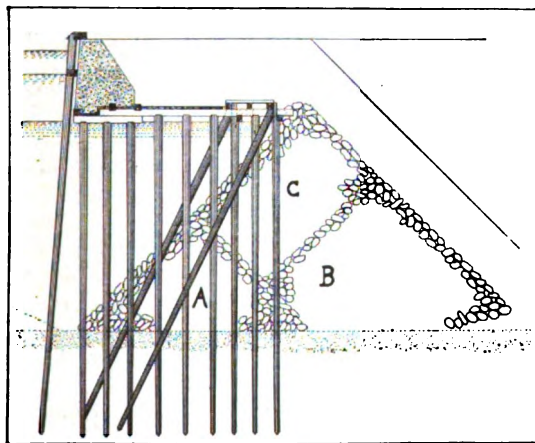
Mr. Slocum's eyes twinkled as he watched the puzzled expression of the boys. "I 'll tell you something else," he said. "Before we dredged, our explorations showed that the hard bottom under the mud-bank was gravel and coarse sand. When we dredged off the mud, we found that over the gravel bottom there was a three-foot layer of rocks and boulders. Now where do you suppose they came from?"

The boys were no nearer a solution of the problem than before.

"Why, the only way to account for it," explained Mr. Slocum, "is that the rocks and stones were floating in the mud. The suction-dredge could not drag them out with the mud, and they were left as a sediment at the bottom. It is that layer of rocks that pushes our piles around helter-skelter; but you see it is a simple matter to pull them back into place again."

At the far end of the bulkhead, the part that was already finished, there was a light trestle that ran to the shore. It carried trains loaded with rock.

"We are dumping the first fill of rock," said Mr. Slocum, "around the piles that have been capped. The second fill will be dumped from scows back of the first fill, and we shall let the rock sink through the mud to the bottom. Then we 'll dump the third fill between the other two, as this sketch shows. To close up all the holes between the rocks, and to make the dam tight,

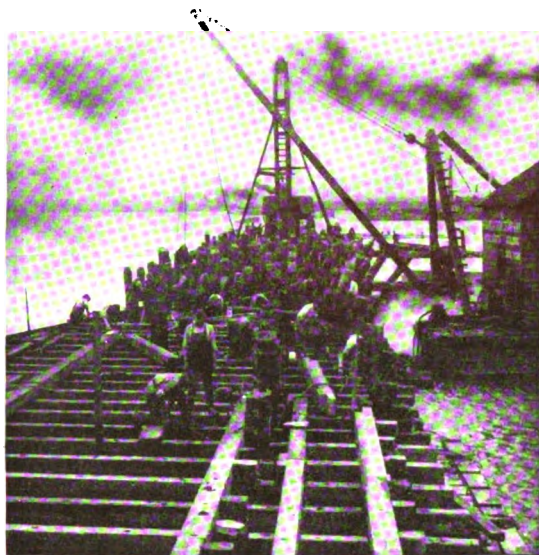


CROSS-SECTION OF BULKHEAD.

A, first fill from cars on bulkhead; B, fill from bottom-dump scows; C, fill from cars on bulkhead.

we 'll then dump dry earth over the inshore side of the rock dam. After that, we can go ahead with our dredging, filling in behind the dam. A flooring of timber will be laid on the capping of

the piles, and on this will be built our concrete quay-wall up to a couple of feet above extreme high water. All the space back of that will be



THE TANGLE OF PILES.

filled in with made ground about twelve feet deep over the flooring of the bulkhead."

"Do you mean to say," asked Perry, "that all that wall and earth will rest on a timber deck?"

"Yes. Oh, it will be strong enough!"

"But won't it rot out in time?"

"No; timbers that are constantly wet don't rot. At very low tide the deck may be uncovered for a short time. But it won't have time to dry, and timbers don't decay except where they have a chance to dry between wettings."

"I can't get it through my head," put in Jack, "why you had to dredge a channel before driving the piles for your bulkhead."

"Ever hear of mud-waves?" asked Mr. Slocum. "No? Well, probably you did n't notice the trestle over the mud-flats as you were coming out to the point. That trestle was wrecked half a dozen times. Sometimes it was just pushed out of place; then, at other times, whole sections of it would be swallowed up by the mud. We drove piles for the trestle through the deep mud and into the hard ground below. Then we ran cars full of stone out on the trestle, and dumped the stone over the side. You see, we were trying to build a dam there without dredging out the mud first. Now, that stone would settle down into the mud very slowly and disappear. The

mud would sink down with the stone until there was quite a depression where the rock had disappeared. That was the start of the mud-wave. At one side or the other of the depression the mud would slowly rise like a wave crest and finally curl over just like an ocean breaker, except that it took hours and days to do what the water does in so many seconds. Those slow mud-waves were too powerful for our trestle to withstand, and it was wrecked time and time again. All we could do was to rebuild it and keep on dumping in rocks until they reached all the way to the surface. If you had seen those mud-waves, you would have realized why we preferred to build this bulkhead in a channel clear of mud."

The boys watched the workmen haul the piles into place, saw them off, and fasten the capping to them with enormous wooden pegs. It was wet work. The men had to stand in water up to their knees, at times, and saw off the piles below the water-line. It was only during the two or three hours of low tide that they were able to work at all.

A strong breeze was blowing from the south, and the tide was coming in fast. It was evident that the men would soon have to stop work. Every once in a while a wave, higher than its fellows, would sweep over the piles.



"THE MUD WOULD SLOWLY RISE LIKE A WAVE CREST AND FINALLY CURL OVER LIKE AN OCEAN BREAKER."

Mr. Slocum had just conducted his party back to the lighter when there was a shout from one of the men.

"Look! look!" cried Harris. "There's a big fellow coming right along!"

The combined swell of a tug and a fast Sound steamer, augmented by the wind and inflowing

tide, was bearing down upon them. The boys on the barge watched the men on the piles brace themselves to meet the coming wave. The next instant Jack and Perry themselves were swept off their feet. Somehow the barge, instead of rising on the crest of the wave, was caught by the piles and held down, while the water poured over it and swept clear through from stem to stern. There was a hiss as it struck the fire-box under the boiler, and great billows of steam poured out of the cabin.

The boys picked themselves up laughing, and chaffed Harris for his serious and almost frightened expression.

"Nothing to laugh at!" cried Harris. "If that had been just a little higher, it would have reached the boiler, and then we'd have had a fine explosion."

That wave marked the end of the day's work. Every one piled into the cabin to dry his soaked clothing. Sam Jones, the big colored fireman, had to rebuild his fire, which had been all but extinguished by the wave.

"Would the boiler really have exploded if the water had reached it?" asked Jack.

"Certainly not," replied Mr. Slocum. "Boilers never explode; but the water in it might."

"What do you mean by that, please?"

"The wave would probably have chilled the metal and shrunk it so suddenly that something would have had to give way; then there would have been a bang. You know that water will boil at two hundred and twelve degrees Fahrenheit, out in the open, but when it is confined in a boiler it may be heated 'way above that point without boiling, because the pressure keeps it in a liquid state. Then it is a really powerful explosive, ready to go off and smash things if it should get a chance. When the boiler bursts, the pressure on the water is released suddenly and all the water flashes into

steam, just as, when dynamite explodes, it flashes into gas. There is an enormous amount of power in overheated water."

"Sam Jones kin tell ye somewhat about the power of a water explosion," said one of the men. "Ye know he was wurkin' over a boiler a couple of months ago when she went off, and

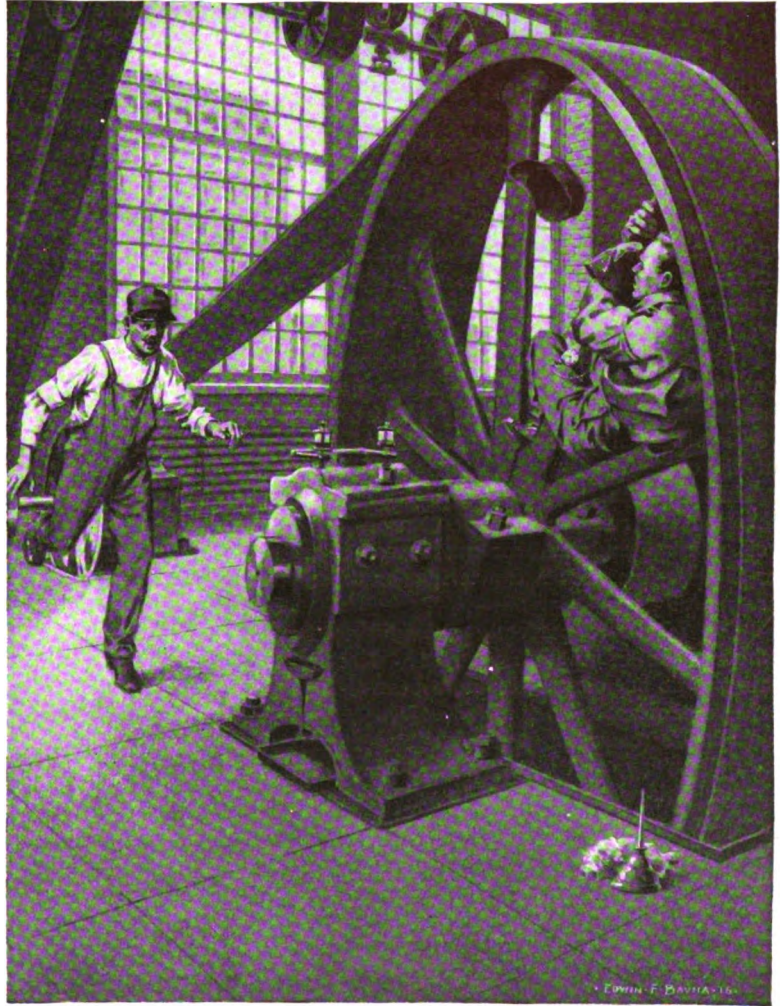
Sam went off, too. He landed in a mud-bank, and we had a job diggin' him out. When we picked him up, he was holding on to his watch as if it were a life-preserver or something."

"How long were you in the air, Sam?" inquired Mr. Slocum.

"T-t-to tell de truf, boss, Ah doan' know," stammered Sam. "Ah dun forgot to look at mah watch."

The remark was greeted with a roar of laughter. "That reminds me," said Mr. Slocum, "of a steam-engineer I once worked for—Dan Saunders. He had an old engine that really belonged in the junk pile. I expected any day that she would fly to pieces. Well, Dan was going over her one day trying to fix her up a bit; she had a big fly-wheel that ran in a pit in the floor. Now it happened that Dan dropped his monkey-wrench or something into the pit, and he stooped down to pick it up. Naturally, he leaned against the fly-wheel. The throttle-valve of the engine had been leaking some; it did n't pass enough steam to start the engine going when she was standing still, but there was just enough steam leaking through to keep her going, once she was started. When Dan leaned against the fly-wheel he gave it just enough of a boost to start the engine; that threw him off his balance. In another minute it would have been all over with him, but quick as a wink he saw the only thing for him to do was to jump aboard that fly-wheel and grab hold of one of the spokes. He did it all right; he made a flying leap, threw his arms and legs around the spoke, and hung on as tight as he could, yelling murder all the time, while the engine slowly gathered speed. I heard him hollering, and came on the gallop to see what had happened. There was Dan, just like a toy monkey, sliding up and down on that spoke as the wheel went round. First he would settle down toward the hub, and

then he would go head first for the rim, with his coat tumbling over him, smothering his noise. His watch was flying out at the end of its chain and banging against the side of the pit. What a holler he did let out! By George, I did n't know he had such lungs. I did n't take time to



"THERE WAS DAN, SLIDING UP AND DOWN ON THAT SPOKE AS THE WHEEL WENT ROUND."

deliberate. I knew there was something the matter with the throttle so I ran straight for the boiler and cut off the steam there. In a couple of minutes I had him out, and my sakes! but was n't he mad! And, would you believe it? he was mad at me. 'You dunderhead!' he yelled as he looked at his battered timepiece. 'Why did n't you grab me watch—did n't ye hear me holler?'

(To be continued.)

SILVERHEELS

BY GABRIELLE E. JACKSON

Author of "Denise and Ned Toodles"

CHAPTER I

WHERE THE CHESTNUTS FELL

SPAT! Then a long silence. Spat again! Another silence. Then spat! spat! spat!

The clear October sunshine fell upon everything, and a soft haze hung over all the land. Now and again, a squirrel ran chattering down a tree to dash upon the ground, hastily catch up a nut, or perhaps three or four, cramming all into his cheeks until he resembled a boy with an attack of mumps, and then scuttled off to his winter storehouse. Still the spat! spat! spat! went on.

The squirrels knew what that sound meant, and their bright little eyes spied the glossy chestnuts almost as quickly as they fell from the tree to hide themselves beneath the piles of dry leaves at its foot.

Hark! What sort of feet are these hurrying through the rustling leaves? Surely not squirrels, for no squirrel ever made such a rustling, or their voices such a chattering, as these voices are making.

"Oh, is n't it perfectly splendid to have a whole morning all to ourselves? Not a single thing to do but play and have a beau-ti-ful time," said voice number one.

"That 's 'cause it 's my birthday, and 'cause it 's Saturday, and 'cause I 've had perfect lessons all this week," chimed in voice number two.

"Was n't Mama good to bake this lovely cake for us, and let us have this party under the chestnut-tree? And these apples are just de-li-cious!" continued voice number two, as its owner raised the lid of the little basket she carried to peer longingly at four rosy-cheeked apples reposing upon a piece of white paper within, and to touch lovingly a small, round cake nestling beside them.

"Now don't you poke your finger in the cake!" broke in voice number one, as its owner strove to jerk away the desecrating hand, and thereby instantly produced disaster, for down dropped the basket, out rolled the apples upon the ground, and the cake turned a complete somersault as it landed in the leaves.

"Oh! Oh! See what you 've done!" shrieked voice number two, which I may as well tell you forthwith belonged to Mab Lingle, aged nine. "You 've just spoiled it!" And she made a wild dive to rescue the treasure, as May, her sister,

but nearly two years older, diving forward at the same time, brought about a sharp collision which caused Mab to sit down suddenly, and May to tumble backward against the little express-wagon she was dragging. Over went the wagon, and out spilled the entire family! Emma Jane's arms were flung wildly over her head; Florian Jerusha, the topsyturvy doll, displayed both of her heads at once; Charles Henry's entire scalp fell from his head, and Pinkey Bowbell's arm dropped from its socket. Mab's woe was complete.

"Oh, just see what you have done!" she wailed. "You 've made me drop the cake, and you 've broken Pinkey's arm, and all just because I peeked in the basket. Oh! Oh! Oh!"

Scrambling to her feet, May, who always found time to repent after she had caused disaster, righted the overturned wagon, caught up one doll after another, giving each a shake, or a pat, to smooth out rumpled garments, made a dive for Charles Henry's scalp, and clapped it upon his bald pate, where two or three sharp pats caused it to adhere, and Charles Henry was instantly made whole again. Pinkey Bowbell's arm required more delicate surgery, but was finally set with the aid of a bit of string, although the limb would undoubtedly prove weak for the remainder of her life.

Meanwhile Mab had finished her wailing and set about rescuing the scattered eatables. The apples gave her little concern, but the cake was split in two! At this discovery, Mab's tears flowed afresh.

"Don't cry. I 'm awful sorry. I did n't mean to," implored May, contritely, as she gazed upon the ruin.

"Oh, yes, I s'pose you are! That 's what you always say. But what good does being sorry do? It can't mend my beautiful cake, can it?" retorted Mab, with spirit.

"Give it to me. I 'll fix it!" cried May, who, if peppery, was also resourceful, and catching up the two halves, she raced off to the brook near at hand. A little judicious moistening caused the pieces to adhere, if rather uncertainly, and some hazel leaves from a tree growing close by the brook covered all discrepancies. May hurried back to the disconsolate Mab.

"There! Now it 's just as good as ever. So come and let 's fix for our party right off."

It was not a very taxing piece of work, for a big stump and a doll's shawl served for table and table-cloth. Leaves made fine plates, and two enameled cups held the water. The cake was the chief attraction, and occupied the center of the table.

"Don't let 's have the party just yet," said Mab. "Let 's go down to the brook and play."

"Wish we could wade, don't you?" asked May, who loved water like a pollywog.

"Um, but we can't. Mama said the water was too chilly now," answered Mab.

"If we had on our rubber boots we could. Shall we go home and get 'em?"

Mab glanced across the fields to the farm-house nestling so cozily under its spreading elms, and said rather doubtfully: "I don't know."

"Oh, come!" cried her more energetic sister. "It will be lots of fun, and we can get our boats too!"

"All right!" and up jumped Mab to go scurrying over the fields toward home, leaving the interesting family of dolls to entertain themselves. "Do you think the children will be all right?" she panted as she ran.

"What 's going to hurt 'em? Why, that 's our very own tree, and our very own play place, and all this is Dad's very own farm," cried May.

Within the farm-house, all was orderly and wonderfully attractive, for Mrs. Lingle was a wise and skilful housewife.

SCARCELY had the sound of the children's racing feet died away than new, and most unusual, sounds were heard drawing near the big chestnut-tree. The tread of a horse, and yet Mr. Lingle had no horses pastured anywhere near the tree. Presently, a voice said: "Now watch out, Silverheels. Mind your eye, or you 'll take a header, and so will I."

The answer to this warning was a soft bub-

bling: "Hoo-hoo-hoo-hoo-hoo," and the next second, a fine, gray horse emerged from the dense undergrowth of the wood and hurried toward the babbling brook, wherein he plunged his muzzle nearly up to his eyes, and drank and toyed delightedly with the refreshing water. His rider



"THE BEAUTIFUL CREATURE FELL UPON HIS KNEES." (SEE NEXT PAGE.)

slipped from his back, and, lying almost flat upon the bank, also drank deeply.

They were an odd pair. The horse, evidently little more than a colt, was a fine, dappled gray beautifully formed, with a head that betokened fine stock. He had on a bridle, but a blanket was strapped across him in lieu of a saddle, and small bundle was fastened in front of the blan-

The boy was about fifteen, and to judge from his personal appearance, the world had not treated him any too kindly. His clothing showed hard wear, and he certainly was not overburdened with flesh, but his face was frank and winning, and his eyes brave and truthful. The colt, on the other hand, looked as though the world had treated *him* very well indeed, for his sides were round and full, and his coat shiny as silk. Evidently he had been carefully groomed.

When the horse and rider had drunk their fill of the crystal water, their dripping faces were raised almost simultaneously, and they looked into each other's eyes.

"Well, what next, old fellow?" asked the boy.

The horse pawed the ground and neighed.

"Want to be a-goin' on? Well, mebbe we 'd better, but, old boy, I would n't mind having my breakfast first. You 've got the best of it this trip, for grass is n't likely to give out yet awhile."

The horse looked at him as though he understood every word, then started across the brook and bounded up the farther bank.

"Hi! Hold on! Where you a-goin' to?" called the boy, scrambling after him. In another moment, they were out of the dell, up the bank, and beneath the chestnut-tree. Could any invitation have been plainer? There was the breakfast all spread, the hostess and her friends undoubtedly awaiting the arrival of these tardy guests, for two extra covers were laid.

A table spread in the wilderness. Could such an invitation be disregarded? Hardly, when this particular guest had not tasted one mouthful since the previous noon. The cake and three of the apples disappeared in short order. The fourth apple regaled the four-footed guest.

Just then, voices were heard approaching. The boy bounded toward the tree, and the next second was high up in its leafy branches. The horse stood like a statue, with ears pricked forward, listening eagerly.

"Let 's see first if the children and the dinner are all right," said Mab, as she hurried up the bank.

"Of course they are. What could hurt them I 'd like to know?" piped up May. But the next breath voiced a shriek, and it was echoed by Mab, for there stood a big, gray horse, and the feast had vanished.

CHAPTER II

SILVERHEELS PLAYS MESSENGER

"OH, my children! My precious children! He will eat 'em up," wailed Mab.

"Shoo! Get ap! Go away! Whoa!" screamed

May, all in one breath, as she wildly waved two pairs of rubber boots at the statue-like animal confronting her, and Mab let fall the two little sail-boats which she carried. A suppressed laugh sounded in the branches overhead.

"Oh, come away quick! He 's *snorting* at you, and horses are always mad when they snort like that," begged Mab.

"He did n't snort. He has n't done a thing but look at us, and *I* don't believe he 's *real*; he could n't stand so still if he was," said May, in an awed voice.

And, indeed, there did seem some ground for her belief, for the splendid creature before her had not moved a muscle. The little girls did not know that the animal's delicate ears had heard just one word, "Stand," and that it would require a good deal to make him stir until that same voice gave a second command.

"Oh, never mind whether he 's *real* or not, though he *is*, 'cause I saw him wink at you; let 's get our children home as fast as ever we can," said Mab, in a voice quivering with maternal anxiety. "If he only would get a little farther away from the table!"

"Scat! Get out! *Please* go away," were the next commands, although toward the end they savored of entreaty. Whether it was the pleading tone of the last words, or a second flourish of the rubber boots, it is impossible to state, but then and there that extraordinary horse proved conclusively that he was made of flesh and blood by giving a loud whinny and breaking into the craziest series of antics ever seen: down went his head and up went his heels in three or four wild flings. Then, before one could say "Jack Robinson," it was just the other way about, and his head was up in the air, while his fore feet seemed striving to gather chestnuts from the tree above him. Mab shrieked and fled to the shelter of a near-by tree, but May was too ecstatic to think of fear, and began dancing up and down very much as the crazy horse was dancing, waving the boots and squealing with delight, for the child loved animals, and this one was unlike any she had ever before seen beyond the tent-walls of a circus. She was too excited to have heard a few low-spoken words from the tree overhead. When the horse came to the end of his Highland fling, another softly spoken command came from above, whereupon the beautiful creature fell upon his knees and touched his nose to the ground.

Away flew the rubber boots to the four points of the compass, for this performance was entirely irresistible, and May rushed toward the horse and frightened poor Mab speechless by

flinging her arms about the animal's neck. Evidently it was exactly what he expected to have her do, for he kept still as a statue while she stroked his neck, his ears, his silky mane, and his velvety muzzle, meanwhile telling him what a "dear, dear, dear horse" he was. "Oh! Oh!!

and began hastily gathering up her portion of the family and belongings.

"I 'll come too, and we 'll tell Mama all about him, and she 'll send Papa up here to get him, and maybe we can keep him for our very own if we don't find out whose he is. Oh, *would n't* that

be just *splendiferous!*" was May's breathless outburst, as she gathered up her doll family, dumped them heels over head into the express-wagon, and started after Mab at a rate calculated to dislocate every joint in their hapless bodies. Mab had not paused to discuss the matter, but was scuttling toward home as fast as her plump legs could carry her. Five minutes later, they had reached the kitchen porch.

"Mama! Mama! The cakes and the apples were all eaten up," cried Mab.

"*He* ate 'em, I know he did, and he stood right up on his hind legs," added May.

"And he made a bow with his knees," followed up Mab.

"Yes, and I kissed his ear, and pulled his hair, and he did n't mind a bit," was the next astounding bit of information.

"But I got scared and hid behind a tree, and oh, *please* ask Papa to go and get him!" begged Mab.

"My soul and body! What in the name of creation are you children talking about?" demanded Mrs. Lingle, utterly bewildered by the avalanche of words rushing upon her. "*Who* ate your apples and cake, and *whose* hair have you been pulling, I 'd like to know?"

"*His*; he is right up there by our chestnut-tree, and he 's beautiful. His hair is gray, and his ears are white, and he has got darker spots all over his body, and his feet are all—"

"Hush! Be still this minute! My stars! I think you are both stark crazy. Mab, come here. *What* is it you are trying to tell me?"

"Why, he was up on the hill when we went back with our boats and boots. He was standing



THE EVENING MEAL. (SEE PAGE 930.)

Oh!!!" she cried. "Is n't he just lovely? Don't you wish he belonged to Papa? Oh, I wonder who *does* own him?"

The horse was now upon his feet once more, looking longingly from one to the other, but standing perfectly quiet.

"I 'm going home. I 'm afraid of him. You don't know what he 'll do next," declared Mab, as she sidled up behind her more intrepid sister

right by our table, and he had eaten our apples and the cake. And he danced for us, and then I got frightened, and then he bowed, and May went right up to him and kissed him on his ear, and I said I was coming home to tell you, and we brought all our things but the basket."

"Kissed his ear!" cried their mother, now hopelessly at sea.

"Yes, and—and—my goodness gracious! here he comes this minute!" and Mab fled precipitously into the kitchen as her mother turned to look over her shoulder and give a scream, for trotting across the lawn was a magnificent gray horse, and in his mouth *was the children's basket*. Mab watched him from the safe shelter of the kitchen door, Mrs. Lingle prudently kept the porch railing between herself and her remarkable visitor, but May was for rushing out pell-mell to welcome him, when Mrs. Lingle made a wild clutch at her skirts.

"Stop! Stay here! Mercy on us, do you want to be trampled to death? Well I never!" were her rapidly spoken exclamations.

"But is n't he splendid? *Is n't he splendid?*" shrieked May, dancing up and down with excitement. "Where's Papa? Let me go tell him quick."

"He's way down in the middle field, and you're not goin' to stir one step from this porch. Liddy, run down after Mr. Lingle, and tell him there's a stray horse up here, and he or Miah must come along up and catch him."

Liddy, the maid, fled through the house and left by the front door.

"Now don't you step foot off this porch, do you hear me?" commanded Mrs. Lingle.

Meanwhile the big horse had been shaking his head up and down and pawing impatiently.

"He wants me to come and take the basket. I know he does, Mama. Please let me," begged May.

"You won't stir one single step! Do you want to be struck with that great hoof? It don't make a mite o' difference what he wants," was Mrs. Lingle's sharp reply, for this unusual visitor was disturbing her ordinarily tranquil nerves.

Finding that the mountain would not come to Mohammed, Mohammed decided to go to the mountain, and the panic was complete when the horse suddenly gave a loud neigh, and bounding toward the porch, dropped the basket upon it.

Tumbling May unceremoniously ahead of her, Mrs. Lingle gained the shelter of the kitchen and slammed the door in her visitor's face. Five minutes later, Mr. Lingle arrived upon the scene to find a handsome gray horse doing a Spanish fandango in the middle of his wife's pet flower bed, prancing and curveting in fine style.

"Hi! Whoa! Whoa!" he shouted, as he rushed across the lawn toward him.

The horse stopped suddenly in the midst of a wild fling, stood stock-still with his head raised, as he drew in long, audible breaths, the expression upon his face meanwhile changing from one of frolicsome gladness to distrust and terror. Mr. Lingle had almost reached him when the splendid creature gave a mighty bound, cleared the flower bed at a leap, and dashed away at a rate that defied pursuit.

The family came surging out of the kitchen as Mr. Lingle called to Miah to follow him, and ran as fast as he could run after the horse. He might as well have tried to overtake a whirlwind. Half an hour later, he and Miah returned breathless. All traces of the horse had vanished; at least, all traces but his hoof-marks, which led straight to the children's tree, and thence to the dense woodland beyond. They followed the marks about half a mile before giving up the chase, and then decided that the animal must belong to one of the distant farms.

Exciting events upon the farm were too rare to be forgotten so quickly, and May talked about their visitor until Mab lost her temper. Again and again as they trotted off to school was she jerked up short while May pointed excitedly toward a hedge, or a dip in the road as she cried: "Look! Look quick! Right back of those trees! Don't you see him?"

"Oh, do let me alone!" at length cried Mab. "You can't think of anything else but that old horse. I can't stir ten steps away from the house without you jerking me 'round to see if he's coming."

"Well, you just wait! I know he *will* come back. You see if he does n't!"

"I guess I'll see him if he does; goodness knows he's big enough for me to see!" said Mab.

CHAPTER III

IN THE OCTOBER WOODS

WE must now return to the moment when the children rushed away from their chestnut-tree. Scarcely had they vanished over the little knoll upon which the tree grew, before the boy hidden in its branches began to descend from the considerable height to which he had climbed. The descent took several moments; longer, perhaps, than it would have taken had the lad been in normal health, but a two-months' tramp, on half-rations, or often none at all, was not conducive to steady nerves or muscles, and somehow there was a sudden slip, a thud, and the boy lay his length upon the ground. Springing toward him

the horse began nozling and nickering over him. For a moment, the boy did not move. Then he reached up, and, taking the soft muzzle in his hands, asked:

"Do you think I 'm a-goner, Silverheels? I got a shake-up for fair that time, did n't I? Knocked the wind clean out of me! But I ain't killed this time, old man. I 'll be all right in a minute."

The horse continued to fuss over him, and was greatly distressed until the lad rose to his feet. As he did so, he cried: "Golly! that foot got a twist, sure. My, but was n't it funny though? Those kids acted as though they thought you were a stuffed horse until you got a-dancin', and then they changed their minds, pretty sudden," and the boy chuckled as he recalled the children's astonishment. "But I do wish they 'd had a bigger supply of grub on hand: I 'm holler clear down to my toes. Trampin' has its drawbacks fer *some* folks, Silverheels, although you ain't had to suffer none yet, thanks be to goodness. But I do wish I had a square feed o' grain to give you. But look a-ther! the kids forgot their basket, they were so scart. Wonder what they 'd do if you took it along home to 'em? Gee, would n't it be fun to see 'em, though? Guess I 'll send you on the errand. Here, smell! Smell good now. It 's theirs. Now carry. Go!" As he spoke, the boy held the little basket toward the horse, who smelled of it in long, deep sniffs, then took it gently but firmly in his teeth, and shook his head up and down two or three times, as though saying "Yes."

"Yes, I know you know what I mean," said the boy, giving the white nose a good-natured mauling, "but get a move on you and *go*," he ended, giving the horse a pat upon the shoulder, whereupon the intelligent creature executed a series of comical pranks ending with a loud neigh, as he turned and trotted off toward the farm-house.

That trot, by the way, would have caused any horse-lover's face to beam with delight, for anything more absolutely perfect than the animal's action it would be hard to picture. The boy's face shone with love and pride as he watched him, but the next moment a shadow fell across it as he muttered:

"Leave you behind? Well I guess not! He 'd a-killed you bimeby. Better be long o' me, even if we both starve to death, than back yonder gettin' your spirit as well as your neck broke." Just then, the rapid pounding of hoofs caused him to spring to his feet, although he gave a cry of pain as he did so, and to look eagerly toward the farm-house as he cried:

"What 's doin' now, I wonder? Somethin' 's up, or Silver would n't put for me like that."

The next second, the snorting, frightened horse came toward him at full gallop, to draw up suddenly, and stand trembling beside him.

"What 's up? What 's happened, old man? Who scart you so?" asked the boy, putting his arm about the arching neck. A soft neigh answered him, as the horse turned to look apprehensively over his shoulder and lay back his ears as he started slightly.

"I know *them* signs," muttered the boy, "and when I see 'em, it 's time you and me made ourselves scarce, ain't it?" and flinging himself upon the animal's back, he said just one word: "Hike!"

No further command was needed. Lowering his head and giving a low whinny of understanding, the horse dashed away with the boy lying close down upon his broad back, his arms clasping the splendid mane.

About three hours later, a boy stood at a farmer's door begging for something to eat. The farm lay nearly two miles beyond Mr. Lingle's.

"I don't know 's I 've got a single thing ter give you," said the woman, standing at the door, "but I 'll see. An' what ails your foot?"

"I hurt it," answered the boy.

"I sh'd think you *had*. There, *that* ought ter fill yer up," and she handed him six huge slices of bread spread with butter and apple-sauce.

"Thanky, ma'am! Thanky ever so much," said the lad, then hesitated.

"Well, what now?" demanded the woman, a little irritably. "Ain't yer got 'nough?"

"Yes 'm, heaps, but—but—"

"Land sakes, what more *do* you want?" asked his hostess.

"Could you—could you—could you let—let me have some oats?"

"Oats? Oats?" repeated the amazed woman. "What in kingdom come do yer want o' oats? Yer can't *eat* 'em."

"No 'm, but—but, well I heard tell that oats with hot water was good for sprains."

"Good land o' massy, what nonsense! But oats is cheap," and she led the way to the barns. "There, put some in that old piece o' sackin' and then kite 'long; I ain't got no time ter waste on trampin' boys."

He needed no further bidding. A two-quart measure lay on top of the oats, and only a moment was needed to fill it and turn the contents into the piece of sacking.

"Good-by. Hope yer oats 'll cure yer foot," said the woman, as she sped back to her work.

The boy meanwhile was limping toward a sumac thicket which bordered the road not more than a quarter of a mile from the farm-house.

"Hi, Silver! Put on your napkin, dinner 's comin'," he called. A soft neigh answered him, and within two minutes two hungry travelers were eating as only hungry travelers can.

The short October day was drawing to a close as the feast ended, and looking up at his friend, the boy asked, "Where d' you think we 're goin' to roost this night?"

By way of reply, the horse rubbed his muzzle against the boy's shoulder.

"Does that mean you don't care much so long 's I 'm there, too?" asked the boy, taking the big head in his arms and resting his face against it. "Reckon it does, but I tell *you*, Silverheels, runnin' away 's no joke. We 've come a good many miles, and you 've slicked me out o' the State all right 'nough, but I wish I knew somebody who 'd answer, 'What next?' " and the voice quivered.

"Well, let 's jog along *somewhere*. We can't sit here behind the hedge all night. Golly, I 'd like to feel a roof over our heads pretty soon again, would n't you? These nights might be a little snugger if we had one," and the boy struggled to his feet and pulled himself upon the horse's back. "Don't know *which* way I want to go this time, an' that 's a fact," he said, as he looked out over the rolling country, fast losing outline in the chill October twilight. "Seems sort o' homelike round here somehow, with the houses over yonder and the lights a-shinin' in 'em." Not far off lay a deep woodland, dark in the evening shadows. The boy looked toward it. "Guess that 's the safest, so go on, Silverheels. Mebbe there 's a home yonder a-waitin' for us, who knows?" and a weary sigh betrayed how intense was the lad's longing for a welcome upon *some* hearthstone in this world filled with

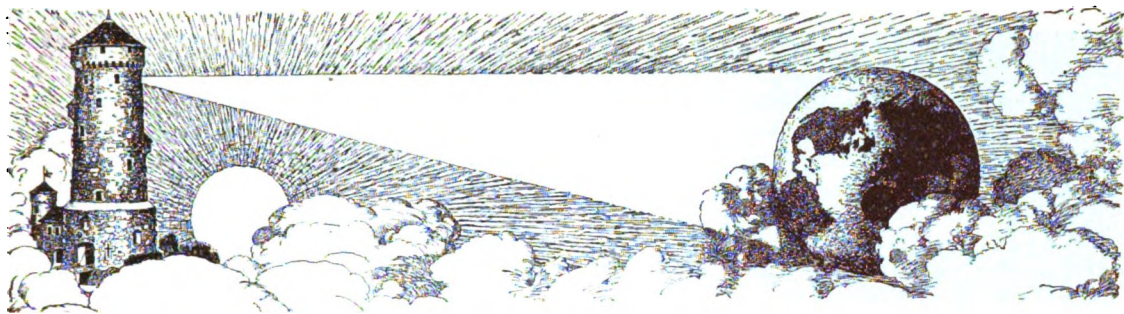
homes, although, so far as he knew, he could not claim one anywhere.

On went horse and rider, and presently entering the woods by a rough wagon path were soon lost sight of in its depths. And ere long they came upon a little clearing where stood a tumble-down building, not much in the way of the "roof" longed for, but better than the open sky. After a careful inspection of the premises, he said: "I guess this will do for this time, Silver," and set about unstrapping the blanket which had served as his saddle. Then opening the little bundle which had been strapped upon the animal's back, he took from it a currycomb, brush, and piece of cloth, and groomed the horse most carefully and skilfully. When all was done to his satisfaction, he proceeded to cover him with the heavy blanket, buckling each strap and the surcingle painstakingly. At last, the boy said: "Now, down, Silver!" and obedient to that well-beloved voice, the great horse stretched himself upon the conglomeration of dead leaves, sawdust, and hay with which the floor was littered, for evidently the place had been used to store ice taken from the little pond not far off. When the horse was comfortably settled, the boy laid himself down beside him, drawing a portion of the blanket across his own lightly-clad body, and resting his head upon the great, warm neck, the only pillow the lad had known in many a long day. The horse never moved, and presently both were sound asleep, worn out with their endeavor to find a home. When the moon came up and peeped through the chinks in the old barn, she saw a curious, but pitiful, sight. Were there any in this great land who loved the little lad wandering about the world with his only friend?

(To be concluded.)



What Nasturtium Leaves Are For.



THE WATCH TOWER

BY S. E. FORMAN

Author of "Advanced Civics," "A History of the United States," etc.

THE GREAT WAR

THE second year of the Great War is drawing to a close with the outlook for peace almost as dim as it was at the end of the first year. The fighting has been terrific on land and sea, but there were no decisive victories. The conflict between the British and the German fleets off the coast of Jutland was the greatest naval battle ever fought; but it settled nothing. The losses on one side were about as heavy as those on the other, and when the fight was over Britannia was still mistress of the seas. Around Verdun, the French were still holding firm against the fierce attacks of the Germans, but the assaults of the Crown Prince's army were not abating in fury. On the southern front, Italy was making substantial advances, but in doing so she was only retaking ground which she had lost to the Austrians. The most important events were happening on the eastern front. Here Russia was driving westward and winning great victories over the Teutons. As the Russian armies swept along they made prisoners of hundreds of thousands of soldiers, captured an enormous mass of guns and ammunition, retook from the enemy several thousand square miles of the Russian domain, and spread their power over a large stretch of Austrian territory. The advance of Russia toward the west was so successful that it raised the Allies' hopes, but Germany claimed that it was checked.

Looking over the entire field, it seemed that the situation at the beginning of July was the same as it has been for many months: the Allies, by land and sea, still had the Teutons hemmed in, and the Teutons still had the Allies hemmed out. Nevertheless, it was not certain, either, that the deadlock would remain unbroken much longer, for the Russians were still winning in the east, and the British were preparing for a mighty drive against the German trenches on the west.

CHOOSING A PRESIDENT

THIS is the year in which the American people elect a President and a Vice-President. Either of these high offices may be held by any citizen born in the United States. Any American-born boy, however poor or however humble his position, may feel that it is possible for him some day to become President. It is true that only about a half-dozen boys now living will ever be President, but it is also true that these boys may at this very time be found in the lower walks of life. We have had several Presidents each of whom in his youth had to earn his bread by the sweat of his brow. One of our Presidents was a tailor who did not learn to write until after he was married. So it is not altogether a vain and empty boast for an American boy to say to himself: "Some day I may be chosen as the President of the United States."

How is the President chosen? How do the hundred million people of the United States select one of their number to act as the chief magistrate of the nation? Every American boy ought to be able to answer this question. The answer is not so easy to give, but it may be learned by observing closely what is now going on in the political world, for the inspiring task of electing the next President was begun several months ago. Thus far the work has consisted in selecting the candidates. This selection is made by political parties. No man can hope to be elected President unless he has first been chosen as the candidate of a great party. It is not an easy nor a simple matter to select a candidate, for in each of the great parties there are many leaders who are eager and anxious to be nominated, and every leader has his friends. The first step in the selection of candidates was taken in April and May when each of the great parties began to elect delegates to a National Convention. The dele-



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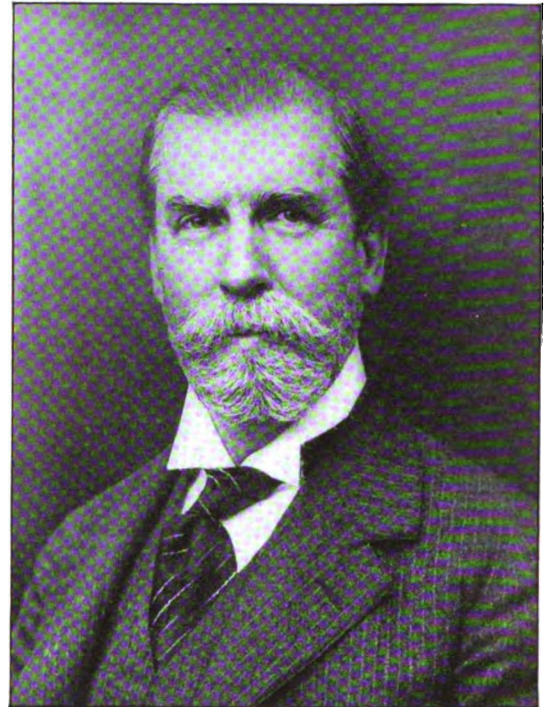
HON. WOODROW WILSON.

President of the United States and Democratic candidate for re-election.

gates who gather in these conventions come from every State in the Union. Broadly speaking, the number of delegates sent to represent a State is based upon population,—that is, the larger the population of a State the greater the number of delegates. Altogether, there are in each National Convention of the two great parties more than 1000 delegates. The chief business of a National Convention is to nominate candidates for President and Vice-President and to adopt a *platform* expressing the views of the party upon public questions.

This year, in the early days of June, the great Republican National Convention met in Chicago and nominated Charles Evans Hughes of New York, one of the Justices of the Supreme Court, as its candidate for President. A few days later the Democratic National Convention met in St. Louis and re-nominated Woodrow Wilson of New Jersey. The Socialist Party did not hold a National Convention. It selected its candidate by direct vote, each member of the party voting for the candidate of his choice. The result of this direct vote was that Allan L. Benson, of New York, was chosen as the Socialist candidate.

With the nomination of these candidates the Presidential campaign will begin. Meetings will be held, orators will set forth the claims of the



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HON. CHARLES EVANS HUGHES.

Republican candidate for President.

candidates, processions will march through the streets, bands of music will play spirited airs, and everything that can be done to influence voters will be put into effect. The campaign will have its faults, but upon the whole it will do the country good. It will awaken civic spirit and educate voters. For the Presidential campaign is the school-time of democracy.

PARADES AND PATRIOTISM

NEVER before have Americans witnessed more numerous and inspiring patriotic parades than those that have been held in the months just passed. In all parts of the country, men and women, old and young, rich and poor, black and white, have been forming processions for the purpose of arousing interest in the matter of preparedness. In New York there was a monster preparedness parade which included over 150,000 citizens, while in Chicago there was another almost as large. Similar demonstrations on a scale equally imposing in proportion to the number of inhabitants were made in many other cities. In the city of Washington, Flag Day (June 14) was celebrated by a parade which afforded one of the grandest spectacles ever witnessed at the National Capital. Amid a sea of waving flags an army of nearly

50,000 men, women, and children marched up Pennsylvania Avenue from the Capitol to the White House. At the head of the parade was President Wilson, walking and carrying a flag. In the procession were the leading men of the land. There were Judges of the Supreme Court of the United States, members of the Cabinet, and many Senators and Representatives from the halls of Congress. In the orderly throng were business men, working-men, and citizens from every line of occupation. One division consisted of children from the public schools.

The main purpose of most of these demonstrations has been to awaken interest in the subject of preparedness. In all parts of the country there are large numbers of people who feel that we ought to have a larger army and a stronger navy, and citizens have turned out and marched in these parades in order to call attention in a striking manner to these, as they believe, most urgent needs of the nation. That the demonstrations have done much for the cause of preparedness cannot be denied. But they have done something else: they have aroused the American spirit and have kindled the fire of genuine patriotism. The sight of so many flags has caused citizens to reflect upon the true meaning of our glorious banner. What is this true meaning of the American flag? "The flag is the symbol of the nation's power; the emblem of freedom in its truest and best sense. To all lovers of the country it signifies government resting on the consent of the governed; liberty regulated by law; the protection of the weak against the strong; security against the exercise of arbitrary power; and absolute safety for free institutions against foreign aggression."

THE DEMANDS OF THE TRAINMEN

IN THE WATCH TOWER for March we left 400,000 railroad employees—engineers, firemen, conduct-

ors, and trainmen—voting upon the question as to whether or not they should demand an eight-hour day. When the votes were counted it was found that an overwhelming majority of the men were in favor of making the demand. So the men asked for shorter hours; but their request was not granted. The chiefs of the four big railroad-unions and the managers of the railways held several meetings at which they tried to come to an agreement. The managers proposed that the matter be left to the decision of the Inter-State Commerce Commission, the body which under the authority of the National Government



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PART OF THE GREAT PREPAREDNESS PARADE PASSING THE NEW YORK PUBLIC LIBRARY.

regulates the affairs of all railroads doing an inter-state business. But the chiefs were unwilling to submit their case to this Commission. They said—and doubtless they were right—that the Commission did not have power to fix the wages of railroad employees. In order to meet the objection the managers of the railways said to the chiefs: "In the event that the Inter-State Commerce Commission *cannot*, under existing laws, act in the premises, we propose that we jointly request Congress to take such action as may be necessary to enable the Commission to consider and promptly dispose of the questions involved." But the chiefs rejected this proposal. They did not want the Government to fix their wages. Then the managers proposed that the question be left to arbitration. This proposal also was re-

jected. "We are opposed to arbitration," said Chief Garretson of the Order of Railway Conductors, "because experience has shown us the difficulty of getting neutral arbitrators who understand the questions involved. We will never agree to arbitrate any question which might result in depriving the men of the right of selling the hours they now sell." When it was found that agreement was impossible, the chiefs decided to ask the trainmen if they wished to *strike* for the eight-hour day. At about the middle of June over 400,000 ballots were sent out asking the question: "Are you prepared to withdraw from the service of your railroad in the absence of a settlement agreeable to the committee and your representatives?" It was thought that it would require about forty days to get the ballots back, and count the answers. If the majority of the vote proves favorable to a strike, then the leaders and managers will meet again, and once more try to come to an agreement. If they shall still fail to agree, the country will face the danger of a general tie-up of all the railroads in the country, for their leaders say that 85% of the men are now in favor of a general strike. Such a strike, however, would soon have an ending. In our great cities men, women, and children by the thousand would begin to die of starvation if the trains should cease for but a few weeks to bring in their customary loads of food; and as soon as starvation was threatened, a way would be found to run the trains. Public opinion would demand that they be run, and nothing can hold out against public opinion.

EARL KITCHENER

ON June 5 Earl Kitchener lost his life when the cruiser *Hampshire* was struck by a mine or torpedo off the West Orkney Islands. This great and famous Englishman was on his way to Russia, in the line of duty, when he met his tragic fate. Kitchener had rendered distinguished service as a soldier in nearly every part of the British Empire—in South Africa, in India, in Egypt. At the outbreak of the Great War in 1914 by mere luck he happened to be in England. Within a few hours after war was declared, he was appointed Secretary of State for War. His first duty was to raise a large army and raise it quickly. No man could have been better fitted for the task. Hard work was required, but work with Kitchener was play. It was said of him that he had two recreations: one was to work himself, and the other was to see that everybody around him worked. As soon as he was made Minister of War he began to "make things hum,"

recruiting and organizing the new army that was so much needed. He caused the British Isles to



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LORD KITCHENER.

be covered with flaming posters urging young men to enlist. He went from place to place in person, and superintended the drilling of the recruits. He worked night and day, with the result that within a year about 3,000,000 men had enlisted for service. At the time of his death the number had been increased to more than 4,000,000.

Never before in all history was such a large army raised in so short a time. Kitchener was for England the "man of the hour."

The world knows and thinks of Kitchener chiefly as a soldier, but his work in Egypt showed that he had many elements of the statesman as well as of the warrior.

A SCHOOL OF HYGIENE

It has recently been announced that a School of Hygiene and Public Health is presently to be established in Baltimore. The school is to be conducted in connection with the famous Medical School of the Johns Hopkins University and is to be supported by funds furnished by the Rockefeller Foundation. It is likely that the new school will have all the money it needs, for the Foundation has at its disposal a fund amounting to more than \$100,000,000, and can afford to be liberal. At its head will be placed one of the most prominent physicians of the country. The School of Hygiene is the first of its kind ever established. Its purpose is to train men and women for the profession of sanitation, that is, for the profession of health-preservation. In medical schools men and women are trained in the art of *curing diseases*, but in this new school they will be trained in the art of preventing disease by *preserving health*. Graduates of the school will be H.D.'s instead of M.D.'s, for they will be health doctors instead of medical doctors. The students in the School of Hygiene will learn all that can be learned about food, exercise, and bathing, and when they go out to practise they

will be able to tell a particular person precisely what he ought to eat, what kind of exercise is best for him, and what kind of bath will do him most good.

But the new school will not confine its work to the subject of personal health. It proposes to study the subject of *public health* in a thorough manner, and to train those who desire to fit themselves for careers in public-health work. Graduates who have taken the public-health course will be able to tell the people of a city just what they must do to keep their city in a healthful condition. Such graduates will take positions as health-officials in towns and cities, and doubtless they will be in great demand, for already there is a pressing need for health-officers who know their business. Surely this new School of Hygiene has before it vast opportunities for usefulness. If its plans are carried out it will confer great benefits upon the city of Baltimore, the State of Maryland, and upon the country at large.

ON THE BRINK OF WAR

IN THE WATCH TOWER for last month the Mexican situation was described as being critical and full of danger. During June matters went from bad to worse, and by the first of July the United States and Mexico were on the brink of war. The thing that started the trouble was a demand made by Carranza that American troops be immediately withdrawn from Mexican soil. This demand was followed by a declaration that if our troops in Mexico moved in any direction except north, war would follow. To this demand of Carranza our Government replied that the purpose of sending the troops into Mexico was either to suppress the Villa bands that have been raiding the American border, or to turn the task of suppressing them over to the Mexican authorities when the American government could be assured that the Mexican government could deal with the outlaws in an effective manner; but that the Villa bands had not been destroyed, or even completely dispersed, and the Mexican government had failed to show that it could or would deal with them in a manner that would restore law and order along the American border. Therefore,

our Government said it was "unreasonable to expect the United States to withdraw its forces from Mexican Territory." As to the threat of war, our Government gave Carranza to understand that the execution of the threat would lead to the "gravest consequences." In order to be prepared for the worst, if the worst should come, President Wilson, through Secretary Baker of the War Department, called out (June 18) the entire National Guard for duty along the Mexican border. In response to this call, by the first of July many thousands of our militiamen had reached the border and thousands more were speeding thither. "Will these soldier boys have to go into battle?" was the question which their anxious relatives were asking early in July.

The answer was largely left with President Wilson; for while it is true that only Congress can declare war, it is equally true that if the President does not want war, Congress is not likely to declare it. It seemed that the President was bound to avoid war if he could. In a speech made on July 1, he said: "Do you think the glory of America would be enhanced by a war of conquest in Mexico? Do you think that any act of violence by a powerful nation like this against a weak and destructive neighbor would reflect distinction upon the annals of the United States?" It was plain that the President wished his hearers to say "No"—to give a negative answer—to both these questions. But the war cloud along the bor-



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A PLATOON OF THE 22ND ENGINEERS PREPARING FOR BORDER SERVICE.

der was still so black and threatening that it seemed quite within the possibilities that the President might be forced against his wishes to abandon his long-cherished policy.



BY E. L. MCKINNEY

ALONG by a licorice lake,
And down by a sugary sea,
Where the butterflies bake and the antelopes
ache,—

For it 's hot as it ever could be,—
To the somnolent notes of a violoncello,
With a voice that was musical, minor, and
mellow,

Sang a vastly melodious pelican,
Sang a highly harmonious pelican,
Sang a gay little, gray little,
Neat little, sweet little,
Dear little, queer little pelican.

As the people were passing the spot,
They said, "What a singular thing!
When so frightfully hot,—for it is, is it
not?—

Why persist in your passion to sing?
We consider such singing most hateful and
horrid

When the weather becomes so excessively
torrid,"

They said to the musical pelican,
They roared at the musical pelican,
At the sweet little, neat little,
Queer little, dear little,
Gray little, gay little pelican.

Then the poor little pelican bird
Replied in a dignified way,—

"Why, I never have heard a remark so absurd!
You have quite put me out for the day.
If you 're really so hot that your foreheads are
glistening,

Why under the sun do you stand there
a-listening?"

Replied the enraged little pelican,
Retorted the angry young pelican,
The queer little, dear little,
Gray little, gay little,
Sweet little, neat little pelican.

"What 's so nice as a melody light
When the sun is ablaze in the sky?
For you know it is quite out of place in the
night,

So enjoy it whene'er it is nigh.
When the sun is so seemingly hot, and so
yellow,

There is nothing so soulful and sweet as a
'cello,"

Affirmed the most logical pelican,
Persisted the practical pelican,
The neat little, sweet little,
Dear little, queer little,
Gay little, gray little pelican.

"If you don't like the songs that I croon,
The blame, I am sure, is on you;
For you know I'd as soon sing
 'most any old tune
And I'll warble whatever you do.

If you have any fa-
vorite, please go
and bring it
And I will endeavor to
soothingly sing it,"
Said that very
 kind-hearted
 young pelican,
That very good-
natured young
pelican,
That dear little,
queer little,
 Gay little, gray
 little,
 Neat little,
 sweet little
 pelican.



All forgot that the weather was such,
And they crowded about him in rows,
Bringing songs from the Dutch, waltzes, rag-
time, and much
From the musical comedy shows.
And they tuned his harmonious violoncello,
And you never can guess what a popular fellow
Became that polite little pelican,
That tactful and wise little pelican,
That gray little, gay little,
 Sweet little, neat little,
 Queer little, dear little pelican.

So, my child, if you're ever in doubt,
All the world, undivided, agrees
If you're never put out by the people about,
And you always take trouble to please,
You will surely become a more popular fellow
Than the bird who performed on the
 violoncello
And was known as the lovable pelican,
The vocally musical pelican,
The gay little, sweet little,
 Queer little, neat little,
 Gray little, dear little pelican.



NATURE AND SCIENCE FOR YOUNG FOLKS



SKELETON OF GIANT BRONTOSAURUS AS EXPOSED IN UTAH'S PREHISTORIC BURIAL-GROUND.

A BURIAL-PLACE OF MONSTERS

BY ARTHUR CHAPMAN

EVERY boy or girl who has visited a great museum has stood awe-struck, no doubt, in front of the skeleton of a dinosaur or some other monster that lived thousands of years ago, long before there were any men on the earth.

The United States Government has assumed control of the greatest burial-place of these monsters ever discovered. This strange district is located in eastern Utah, and will be known as the Dinosaur National Monument, which means that the Government will control it as a public park and that none of the valuable deposits of bones can be carried away by fossil-hunters without the permission of the authorities. In this way only the great museums will get the fossils for restoration purposes, and the patient scientists who work for these institutions will be able to piece together a complete record of the animal life which teemed on the earth when this great burying-ground was formed.

For several years the Carnegie Museum of Pittsburgh has been carrying on research work in this wonderful fossil-field. Professor Earl

Douglass is the scientist who discovered the prehistoric burying-ground, which is a few miles from the little town of Vernal. He heard of fossil discoveries in this region, and determined to find the source of all the specimens that were plowed up in the farmers' fields or picked up by wandering sheep-herders and cowboys. After a long and unsatisfactory search, he one day came across a bone protruding from the ground and bleached white by the sun's rays. He set to work to unearth this bone and found another, joined to the first, and still another.

Workmen were brought to the spot, and it was plain that Professor Douglass had stumbled on the backbone of a mighty monster. Then other bones were traced, and soon it became apparent that the entire region was a vast cemetery, where countless skeletons of prehistoric animals lay hidden beneath the earth's surface. Now, high up on a mountain-top, overlooking the defile where the Green River bores its way through the Uintah Mountains, the costliest quarrying in the world is going on. Great slabs of rock, each slab containing part of the bony structure of some great prehistoric animal, are being quarried with extreme care. A few months ago, if one had

visited the quarry, he could have seen the outline of the celebrated *Brontosaurus Louisæ*, as this greatest of animals has been christened, arched in the face of the rock. From head to tail the great animal could be traced along the face of the quarry, with not a bone missing from the skeleton.

It took two years to get out the skeleton of the great brontosaurus in the rough, and three years more completely to chip away the rock casing after the bones had been shipped to the museum in Pittsburgh. The remains of other monsters in this vicinity have been found "in place," like the skeleton of the gigantic brontosaurus. Even if no more were found, this barren hill in eastern Utah would rank as the greatest fossil-field ever discovered. Some of the remains that have been found are of animals hitherto unknown to science. Near the spot where excavations have been made, the skeletons of at least six dinosaurs have been uncovered. Dinosaur is Greek for "terrible lizard." Some dinosaurs walked chiefly or entirely on the hind legs, and others walked on all fours. Some ate flesh, and some fed only on herbs, but all were terrible fighters. The brontosaurus, or "thunder lizard," is a species of American dinosaurs of the age called by geologists the Jurassic. These great lizards are the largest known land-animals.

It is now believed that the carcasses of these giants, dead from some unknown cause, floated

mighty upheaval which made the present Rocky Mountain range, of which the Uintahs are a part. The sand-bar became a mountain-top, and, with



TRACK BUILT TO THE FOSSIL QUARRY.

the passing of years—thousands, and no doubt millions of them—the bones of the monsters became surrounded with their present covering of sandstone. Here, in the heart of the rock, they were buried until the keen-eyed scientist started the search which uncovered the most wonderful of all these strange fossil quarries.



IN A WYOMING QUARRY, SHOWING HOW FOSSILS ARE UNCOVERED.

down a prehistoric river and became lodged on a sand-bar, becoming gradually covered with sand to a great depth. Then, in after ages, came some

it is known at the museum just where it belongs in the skeleton. Charts are kept showing the exact spot where each bone is discovered.

It has taken an immense amount of labor to carry the work as far as it has been carried to-day. Where the first diggings were started, there is now a great opening extending down many feet and back a hundred feet into the mountain-side, and as it is driven back the bones of new discoveries protrude. These are painted dark brown so that they will not be mistaken for rock and chipped off. As each bone is taken out in the rough it is covered with plaster of Paris and sewn in gunny-sacking for shipment to the museum. It is not possible to use dynamite, because the bones would be badly shattered in blasting. As every bone is plainly marked,

In transporting the bones from the quarry it was necessary to build a small railroad to the scene of operations. Even then the difficulties of transportation were not over. The nearest actual railroad—even a branch line—was many miles away, and the bones were hauled across the desert in wagons drawn by four-horse teams.

The great brontosaurus which was unearthed from this burying-ground was eighty-five feet in length by sixteen and a half feet high. Probably, when alive, the animal weighed twenty-five



BRONTOSAURUS BONES PACKED READY FOR SHIPMENT.

tons. Compared with such an animal, an elephant would be as a dog to a horse. The skeleton of this brontosaurus is larger by ten feet than the skeleton of the diplodocus, another member of the dinosaur family, unearthed by Carnegie Museum scientists at Fruita, Colorado, not many miles from the scene of the present operations in Utah. Reproductions of this skeleton of the diplodocus have been presented to many museums in this country and abroad.

The business of fossil-hunting has been carried on for years in the great-plains region and the Rocky Mountains. Many valuable discoveries have been made in the chalk-beds of Kansas, and in the Texas geologic fields. Colorado and Wyoming have yielded many fossils to museums in all parts of the country. Wyoming in particular has proved a wonderful field, particularly the Bone Cabin region, so called because a sheepherder in early days built an entire cabin out of the bones of prehistoric monsters which he found scattered about the plains where his sheep were grazing, thus obtaining a very remarkable home.

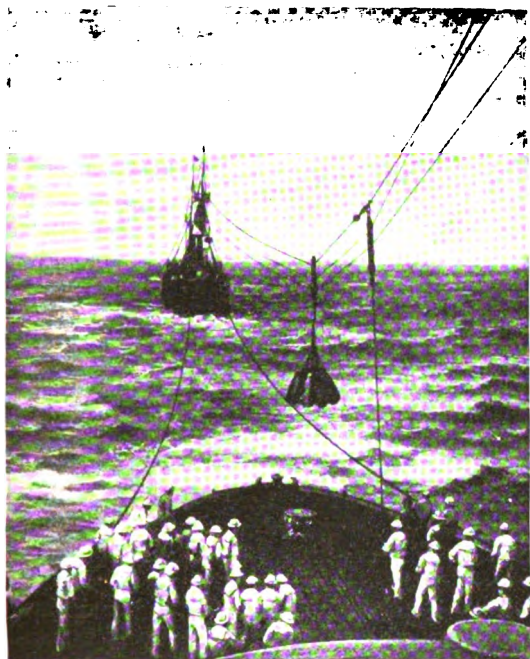
In most cases where fossil discoveries have been made, however, some parts of the skeletons have been missing. In this respect the Utah field which has been set aside by the Government is unique. Despite the violence of the great upheaval which formed the mountain range, and which put the river-bed more than a mile above sea-level, the bones of most of the monsters are lying as they were when they were deposited in the sands ages ago.

The business of fossil-hunting is one of the most fascinating in the world. Many celebrated scientists have devoted their lives to it, and through their devotion and unflagging interest the great museums of this country have been put in possession of wonderful collections of fossil remains. Fossil-hunters do not always seek the bones of such monsters as dinosaurs. Nothing is too small to escape their attention. In one fossil-field in Colorado, at Florissant, the fossil remains of millions of prehistoric insects are being unearthed and distributed among museums. These insects evidently fell into a lake, being carried there by the ashes from some volcano in eruption. They settled to the bottom of the lake and became fossilized, and now are being dug out and catalogued by tireless and observing men of science. On the plains of eastern Colorado one scientific expedition found the remains of the tiny three-toed horse, which is said to be the ancestor of our horse of to-day.

Such men do not work for the rewards of the hour, but for the ages. What they are accomplishing, through the patient application of knowledge, cannot fail to be an inspiration. Any young person who looks on one of these restored skeletons in a great museum, and realizes the work required to uncover those remains, free them from the surrounding rock, and set them up in perfect form, cannot help being impressed with the fact that the men who are foremost in this employment are engaged in a life task that is well worth while.

COALING ON THE WAR-PATH

EMINENT naval authorities have stated that the coaling of great battle-ships at sea while under half-speed, a system devised and perfected by American inventors and mechanics, increases the mobility and efficiency of such vessels by a large percentage. Exhaustive sea-trials of this equipment, made by naval officers, have clearly shown that a battle-ship under a speed of from five to twelve knots can be coaled from a collier in tow



ON A BATTLE-SHIP WHICH IS BEING COALED AT SEA.

in any sea where it is safe to keep the collier's fore-hatches uncovered. Over eighty tons of coal per hour have been so transferred.

The arrangement is simple, although the mechanical details show great ingenuity. The battle-ship takes the collier in tow, a distance of three or four hundred feet being preserved between them. Then a conveying-cable is run from an elevated point on the war-ship over sheaves on an elevated point on the collier and thence astern to a sea-anchor.

Running on the conveying-cable is a carrier-sheave, hauled back and forth between the two vessels by a hauling-line. Finely designed steam or electric winches operate the hoisting from the collier's hold, the hauling across, and the descent into the bins of the war-ship. The coal is carried in sacks, and groups of these sacks, weighing from eight hundred to three thousand pounds according to the condition of the sea, are conveyed on each trip.

Round trips are made under fair conditions in

forty seconds, and in smooth water eighty-five tons per hour have been so handled. In a rough sea, that amount is cut down to perhaps twenty-five tons.

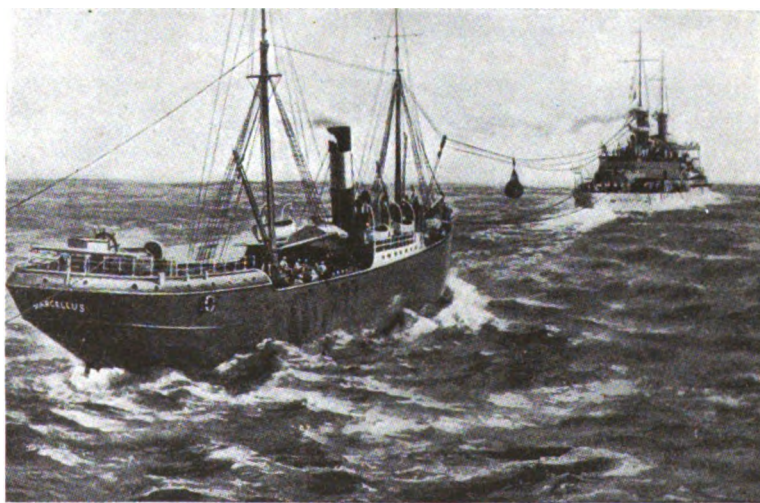
There is little loss of time to a battle-ship in coaling with such equipment. The propellers are stopped for a few minutes to permit the tow-line and conveying-cable to be run between the two vessels. Then at once they steam on again at eight or ten knots while the tackle is being adjusted and the coal transferred. On repeated trials it was found that less than sixty minutes elapsed in getting the tow-lines and all other equipment entirely ready for operation, and during the larger part of that interval the battle-ship was proceeding at one-third or one-half speed toward her destination.

The sea-anchor is for the purpose of keeping the conveying-cable taut under any condition of the sea and the consequent pitching or rolling of the boats. In very large colliers a special tension power-engine is substituted for the sea-anchor.

The battle-ship may be fitted with double winches and other details which enable it to coal from any vessel—an unfitted collier, or a captured battle-ship, or a freight-steamer.

The late Rear-Admiral C. J. Train, U. S. N., said of this method:

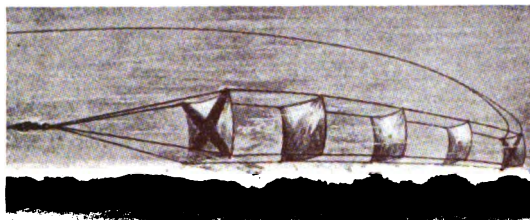
It makes coaling at sea a perfectly simple, easy operation, which it never was before. There was no time during the Cuban blockade of '98 when this system could not have been used. It proves the system capable of supplying coal in any weather that is fit for coaling ship.



A COLLIER, TOWED BY A BATTLE-SHIP UNDER WAY, TRANSFERRING COAL.

Concerning its vital importance to the efficiency of our fleet Lieutenant-Commander J. R. Edwards, U. S. N., has said:

It is because coal supply governs the movement of the superior fleet that everything pertaining to coaling warships at sea should receive the careful consideration of the naval student and tactician, for that nation which will make a distinct advance in coaling its ships will make a distinct advance in naval strength.



THE SEA-ANCHOR, WHICH KEEPS THE CONVEYING-CABLE TAUT IN BAD WEATHER.

Transfers of men, supplies, or ammunition can be made with the same absence of delay—a condition which might be of vital importance in war time.

GEORGE FREDERIC STRATTON.

A MIDSUMMER LANDSCAPE

THE picture of Punta Arenas which we reproduce on this page brings home to us a realizing sense of the familiar fact that the seasons in the southern hemisphere are exactly the reverse of our own, north of the equator, for it represents the plaza in that far-away town on a July day.

The city of Punta Arenas, most southerly of all the cities in the world, is situated on the Strait of Magellan, on a strip of sandy land with forest-clad ridges and hills behind. Over twelve thousand people make their home there. Chileans, Italians, Danes, Russians, Swedes, Norwegians, and Austrians all mingle in a Babel of tongues: Pretentious stone buildings of recent construction, corrugated-iron houses, numerous hotels, and screeching phonographs combine to form the visitor's first impression.

A FARMER AND HIS SHOWERS

THERE is a farmer in New Jersey who raises green things especially for Philadelphia and New York. He is what is commonly called a "trucker." He has a lettuce patch that covers forty acres, and each one of those very solid heads weighs, as a rule, more than a pound! This same tiller of the soil ships from his farm yearly four hundred car-loads of produce—those very vegetables that we all hunger for, particularly in the spring and autumn, when either the summer's plenty has not arrived or the bounteous season is past.

This farm is the most remarkable one of its kind in existence, and experts in agriculture are drawn there from all over the world to learn how Mr. Charles F. Seabrook is able to do what he does notwithstanding that his fruitful acres have



A JULY DAY IN THE PLAZA AT PUNTA ARENAS.

no especial advantage in the way of climate. The secret of Mr. Seabrook's success is that he imitates Nature when she does her best, and at the same time takes special pains to avoid her mistakes. For Nature does err from time to time in the way she allows the hot sun to shine and the clouds to pour out their fullness.

Before we tell just how this newfangled farmer grows his crops and sees to it that they ripen just when the biggest prices are offered in city markets, let us have some idea of how a plant lives and thrives, and just what it needs in order to do these things.

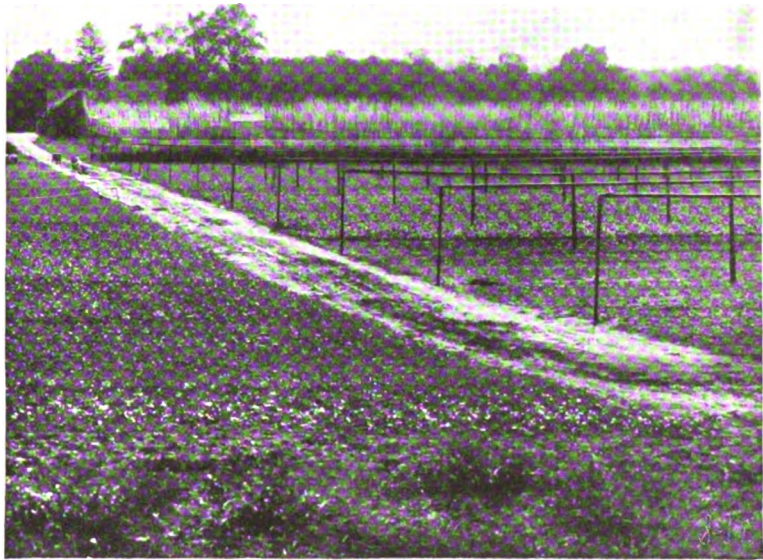
No matter how rich may be the soil, moisture is needed to dissolve the plant-food, or fertilizer, in the ground and to carry it to the roots. The roots drink in this nourishment, and what is left of the moisture passes on up through the plant to the leaves, where it is taken up again by the air, or evaporated. In the course of its complete life a thoroughly well-developed plant, be it only a blade of grass, needs many, many times its own weight in water. For instance, a ton of hay, to grow to maturity, or ripeness, has to have five hundred tons of water!

Fertilizer is a tonic, and the plant that has it grows rapidly and develops abundant foliage; but if there be not enough moisture, these leaves will wither in the hot sun. In other words, the very size of the plant has made it more dependent upon plenty of water. The enriched ground increases thirst, and if water be lacking, the plant may shrivel up and die. Therefore the farmer must see to it that his growing things have enough moisture when the clouds fail to send down the rain. On the other hand, where there is an excessive rainfall in a season, these strong, thirsty plants drink it all up and thrive on it.

But all of Nature's showers are not entirely helpful. If the rain beats violently upon the earth, the surface of the ground is packed by the blows and much of the water runs away instead of sinking into the soil. When the sun comes out on ground in this condition, the surface is dried up and hardened so that the next rain will be wasted even more, because it will have still

less of a chance to get into the earth beneath; and if the moisture cannot enter the underlying soil, the plants cannot get their food and drink. More than that, so the experts tell us, the baked condition of the ground's surface really helps the sun to draw up out of the earth what moisture is underneath.

Now Mr. Seabrook cannot change Nature's routine. He cannot keep hard rains away; but he does some things that help wonderfully to prevent the damage that so often follows violent showers. Besides, he provides rain when the



"THE WATER COMING FROM THE PIPES IS TURNED TO THIN JETS OF SPRAY."

skies fail him, and these showers are just the right sort for both the plants and the soil. They are really very gentle rains, and the moisture enters the earth without hurting the ground surface, and well nigh every drop does good. The plants grow rapidly and soon become so strong and big that they almost hide the earth beneath their abundant foliage. Therefore, when heavy rains do come, the drops are broken up by the sturdy plants and the soil is not injured. By giving his growing things plenty to eat and drink he makes them so big and strong that they soon outgrow their baby days and are too hardy to be the victims of disease or their insect enemies.

How does this up-to-date farmer provide these rains? Why, he has scores and scores and scores of rows of overhead pipes, and in these are bored tiny outlets so that the water issues from them in thin jets that turn to spray long before the ground

is reached. One hundred and sixty acres of this farm will soon be irrigated in this fashion; and because the thirsting plants get all the water they need, they grow to an astonishing degree. On neighboring farms the husbandman is quite content if he raises two hundred bushels of potatoes to the acre; but Mr. Seabrook gets more than six hundred bushels in the same space, and gets better potatoes, and has them out of the ground earlier. His strawberry beds produce wonderful fruit, and ten thousand quarts are an average yield per acre. The ordinary farmer seldom harvests more than three thousand quarts to the acre, and the run of his berries does n't begin to compare with those on this very modern farm.

We have mentioned only some of the things that are grown by Mr. Seabrook, but these will do to give a good idea of what man-made showers and plenty of fertilizer will do when skilfully used. Because of the way he does things, this farmer can compete with the truck-growers of the Southern States, and he really runs his farm almost like a factory, for his produce is ripened and made ready for the market with astonishing promptness and regularity. We all need the fruit of the farmer's efforts, but we know how often

been practised for centuries, but the kind of farming that will be followed very extensively in the near future, especially where the desire is to raise choice vegetables.

ROBERT G. SKERRETT.

"PREPAREDNESS" IN THE VEGETABLE WORLD. ONE OF NATURE'S LITTLE STRATAGEMS

EVERY sort of plant that grows is putting up a never-ending battle to keep its place in the world. It fights frost. It fights drought. It grows thorns to bayonet the creatures that try to eat it up; or with nuts, or fruits, or berries it tempts them to carry its seeds to some unoccupied spot where it may dig itself in and stay. It even mounts its seeds on aeroplanes and distributes them on the wings of the wind.

One would think that, when once any plant did manage to get its seeds into good ground, the first thing for it to do would be to have every single one of them, as quickly as possible, spring up, become plants, and themselves bear more seeds. Yet it does not. Instead, some of the seeds hold off, and do not sprout at all the first season. Then, if anything happens to the plants

of the first crop,—if they are cut or eaten down to the ground, if the year is bad and the seed does not ripen, if the farmer roots them up entirely to make room for another crop,—there is ammunition in reserve. The seeds that held over try again next year and the next. Instances are known of seeds, once sown, continuing to come up, a few at a time, for ten summers. Each year the plants perished before they blossomed. But still they kept springing up from old seeds. Nature seldom puts all her eggs in one basket.

This seems especially true of the useless plants which we call weeds. Once have them get a fair start, ripen a crop of seeds and get them well into the ground, and the man who lets them get by him

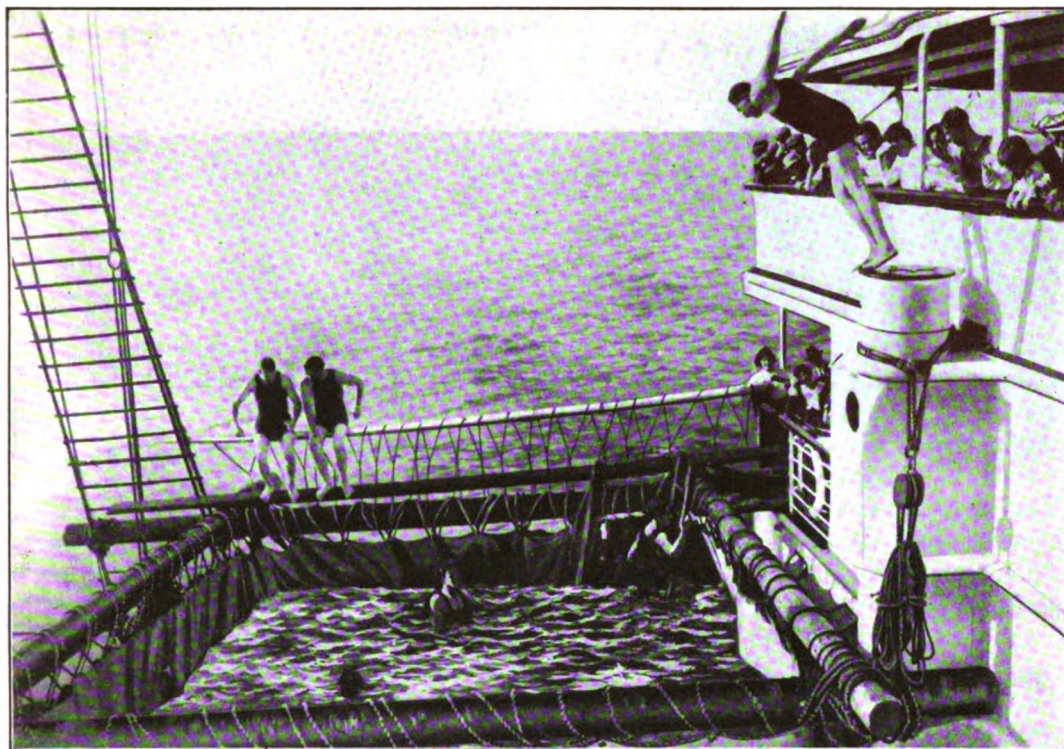
will spend a good many years before he sees the last of his troubles.

But with useful plants, also, we see the same foresight. Red clover, once planted, can be plowed up every year and still keep coming from this reserve supply of seed. It is said that clover-



CELERY-BEDS THAT HAVE BEEN ARTIFICIALLY WATERED.

the weather spoils his work. Now we see how man's cunning makes it possible to be largely independent of the weather's uncertainties. This sort of cultivation of the soil is not left to chance, and every acre of ground is made to yield its utmost. This is not farming as it has



Photograph by Janet M. Cummings.

A SWIMMING-POOL ON THE DECK OF AN OCEAN LINER.

seed has waited over an entire human generation, so that a farmer has had to reckon with clover-plants that his grandfather sowed.

On the face of it, it looks like a pretty difficult matter for nature to arrange that, out of a handful of clover-seeds, all equally alive and all planted in the same moist and fertile ground, some should spring up within a week, and some within a month, and some the next season, and some not for a decade. Just how nature manages the trick has not been known until recently, when a German botanist found out the secret.

It seems that different seeds of the same plant are made with coats of very different thickness. If the coat is thin, the seed readily drinks in water from the damp earth, swells, bursts its jacket, and becomes a green plant. If the coat is little thicker, the process is slower. That seed dodges the early frost, but catches the first hot days. The still thicker coats let no water through, and the seed lies dormant year after year.

Now comes the curious part of the discovery. The plowing and harrowing and tilling of the ground, year after year, and the action of the acids in the soil, gradually wear the seed-coat thin. It may take one season. It may take ten.

But sooner or later the jacket around the living seed gets thin enough to let the water through. That season, therefore, the seed sprouts.

The man who found this out kept clover-seed in water year after year. Almost half of it sprouted the first season. More followed from time to time. But even after twenty-five years, some of the seed still waited its turn. Yet these old seeds, that had been kept a quarter of a century, grew at once into vigorous plants when they were scratched with a pin!

E. T. BREWSTER.

AN OUTDOOR SWIMMING-POOL ON A PACIFIC LINER

ONE of the latest devices for the amusement and pleasure of passengers while on an ocean voyage is the outdoor swimming-pool here pictured. The "pool" consists of a huge canvas bag, holding about five feet of water. This is constructed on one of the decks, and the swimmers then dive from the deck above. The voyage across the wide Pacific is a long, tedious one at best, and this innovation helps to while away the time. As the photograph clearly shows, it interests and amuses not only the swimmers themselves, but the on-lookers as well.

FOR VERY LITTLE FOLK

OUR GAME OF DRAWING PICTURES

BY GEORGE C. WALES

TO ALL LITTLE NEPHEWS, NIECES, AND COUSINS

AT some houses where I go a-visiting there are boys and girls who call me Uncle or Cousin, although not all of them are really nephews or nieces or cousins of mine. But I like to *think* that they are, and we have one game that we play a great deal, which is n't really a game at all; it is "drawing pictures." It goes like this:

You say, "Please draw me a picture."

I say, "Get me a pad and a soft pencil, and I will."

That starts the game. Then I sit at a table, and you stand on my left so that you can see everything without my right hand being in the way. Your brothers and sisters take the other places, but the one who is going to have the picture always has first choice.

Then I say, "What shall it be?"

And you say: "Oh—let me think! Oh! I know! A picture of a policeman talking to a fireman about a dog the fireman found—a nice dog." Or perhaps you say, "A picture of me when I was feeding a squirrel in the Public Garden."

Then I draw it just as you say; and if you want the fireman changed into a postman, or two squirrels and a pigeon instead of one squirrel, I do it that way. When it's done, you say, "Now please sign it." And I say, "Your middle initial is 'S.,' is n't it?" And then I write in the lower left-hand corner, "To R. S. L.—July 10, 1916—G. C. W.," and then I tear it off the pad and I give it to you, and you say, "Thank you. Oh—you forgot the number on the policeman's helmet!" And then I put the number on, and the picture is all done, and I say, "Who comes next?"

THESE pictures are a few that I made for my little nephews, nieces, and cousins, and, if you think that the game is a good one, perhaps you will like the pictures as much as if you had told me yourselves what to draw for you.

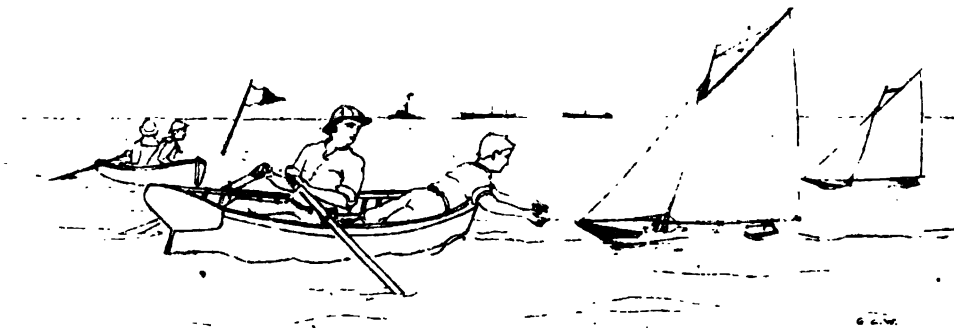
LAWRENCE'S PICTURE

"PLEASE draw a picture of the race Billy Hood and I had between our model boats last week," said Lawrence. "I beat him," he added; "and Arthur Roberts rowed me and Tom Hood rowed Billy, so we could tend our boats."

"Then you want two racers, two rowboats, and you four fellows—all in the picture?" said I.

"Yes," said Lawrence, "and the finish flag, and me beating him. Don't forget that."

"I'll try my best to remember," said I, "all that you have told me to put in."



"I THINK Billy's boat was farther behind than that," observed Lawrence.

"But you see," I answered, "that was all the paper I had; and besides, you would n't want to make him feel too badly about it."

"No-o," said Lawrence. "I did n't see those barges and the towboat the other day. Were they there?"

"I don't know," I replied; "but they hold the horizon down—do you know what that means?"

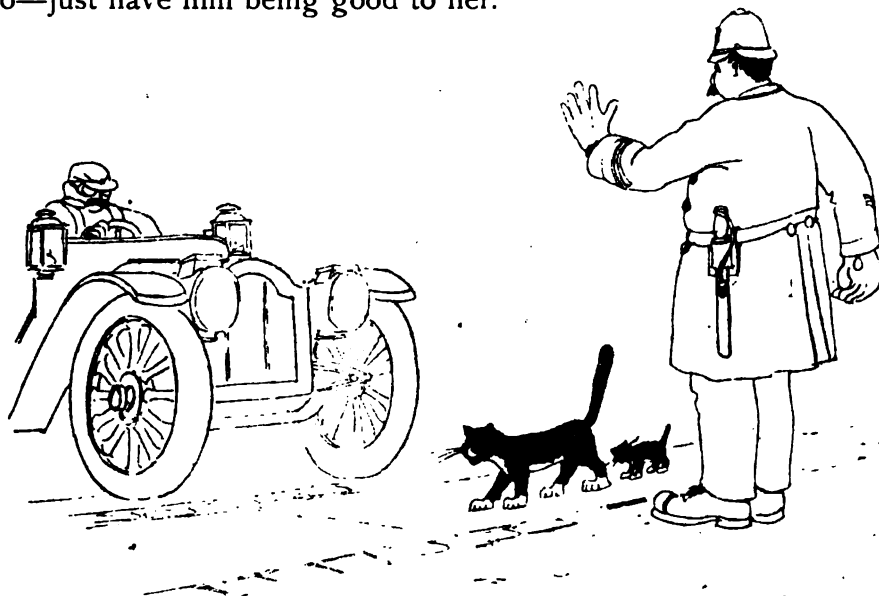
"I don't know about the horizon," said Lawrence; "but I beat Billy all right."

ELEANOR'S PICTURE

"PLEASE draw a picture of a policeman at a street corner being good to a cat."

"There are a number of ways," said I, "in which a policeman may be good to a cat. Do you think of any particular way?"

"No—just have him being good to her."



"Do you suppose that man would really have run over the cat and her kitten if the policeman had n't stopped him?" asked Eleanor. "Do you think he would?"

"No," said I; "I don't believe he would be so mean as that. But I know one thing: if I had thought that he was going to hit her, even by accident, I would have fixed him so he could never bump anybody again!"

"What would you have done to him?" said Eleanor. "Please tell me, quick!"

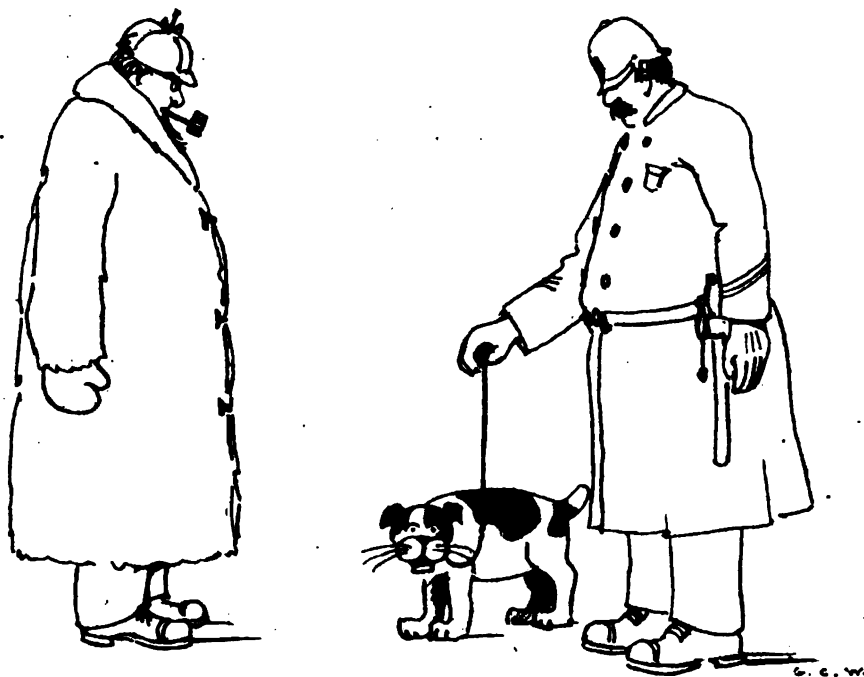
"I would have rubbed him out!" said I.

KATHARINE'S PICTURE

"PLEASE draw a policeman who has found a lost dog," said Katharine.

"Shall we make the dog any particular kind of a dog?" I inquired.

"No," said Katharine, "any kind of a dog that you think would be best."



"Who is the other man?" Katharine asked. "He looks as if it was cold."

"It is n't so cold," said I, "but he has just come to town from Hoosick Falls, and it was very cold when he left, so he has got on his big coat."

"O-oh," said Katharine. "What is he saying to the policeman?"

"I'm not quite sure," I answered, "but I think he is saying that he will give the dog a good home if the officer will let him take him. But I can't quite tell from the dog's face whether he wants to go or not. It seems to me that he looks rather worried."

"What kind of a dog is it?" asked Katharine; "a bulldog?"

"It looks something like a bulldog," I replied; "but I really think it is nothing more or less than a Russian mouse-hound!"

"I don't believe there's any such dog!" said Katharine. "I've never heard of one."

"Neither have I, Katharine," said I. "Who is next?"

RALPH'S PICTURE

"PLEASE draw a picture of a pirate, a real pirate,—the kind they call a buccaneer,—and have a cannon in the picture, too; quite a good-sized cannon."

"That sounds a little bloodthirsty," I remarked. "You don't want him actually killing folks, do you?"

"No," said Ralph; "you can have him loading a big pistol. No—I know what! Have him feeding a bird! But put the cannon in. Be sure to have the cannon."



"Is that a pirate ship out there on the water, too? Another pirate ship?" asked Ralph.

"I'm sure it is," said I. "If it were a king's ship, our pirate would have something else to do besides giving a bird his breakfast. He would be busy with firing that cannon, not sitting upon it."

"I like his tattooed arms," said Ralph. "Is the bird a parrot?"

"He was going to be a parrot," I answered; "but I found that I had built his cage too small, so he had to be a parrakeet, which is rather like a parrot, only smaller."

"I don't think I like parrots very well," said Ralph.

"I don't believe I like them much, either," said I.

ST. NICHOLAS LEAGUE



"A HEADING FOR AUGUST." BY LOUISE ROGERS LAKE, AGE 14. (SILVER BADGE.)

OUR young artists and the prose- and verse-writers seem to have made a triple race of it—or a sort of three-cornered contest—for first honors this month; and all seem to have come out about even. The drawings, as a whole, rose to an unusually high level of excellence. Who could ask, for instance, a better heading for August than the one at the top of this page (with those charming "kiddies" posed so gracefully about the quaint lettering) or the beautiful decorative designs on pages 952 and 955? And the pictures made

to illustrate "Ready for the Ride" are equally deserving of high praise.

Again, we are indebted to the young poets of the League for a really fine mid-summer tribute to our friends "The Trees,"—a series of verses embodying beautiful and appropriate ideas in varied and rhythmic measures; while the subject "A Golden Opportunity" brought us a rich harvest of clever storiettes, with a great range of incident, from grave to gay, and all well told and interesting.

PRIZE-WINNERS, COMPETITION No. 198

In making the awards, contributors' ages are considered.

PROSE. Gold badge, **Jean F. Black** (age 15), New York.

Silver badges, **Dorothy F. Patton** (age 14), Massachusetts; **Martha A. Williams** (age 17), Kentucky; **Richard Somerville Carey** (age 9), California; **Margaret Klein** (age 14), New York.

VERSE. Gold badge, **Harriet T. Parsons** (age 14), California.

Silver badges, **Beatrice Caldwell** (age 13), West Virginia; **Ann Elizabeth Sheble** (age 13), Pennsylvania; **Emily Ross** (age 13), Nebraska; **Mary-Eleanor Abbott** (age 13), Connecticut.

DRAWINGS. Gold badges, **Harlan Hubbard** (age 16), New York; **Helen Johnson** (age 13), New Jersey.

Silver badges, **Louise Rogers Lake** (age 14), Missouri; **Arthur Holt Palmer** (age 16), New York; **Charlotte Becker** (age 15), New York; **Frances Pringle** (age 13), California.

PHOTOGRAPHS. Silver badges, **Amy H. Medary** (age 12), Pennsylvania; **Richard A. Cutter** (age 13), Massachusetts; **Lillian Eddy** (age 14), Virginia; **Richmond A. Edwards** (age 13), California; **Gertrude Cuthbert** (age 14), California.

PUZZLE-MAKING. Gold badge, **Phyllis Young** (age 16), Canada. Silver badge, **Julian L. Ross** (age 13), Pennsylvania.

PUZZLE ANSWERS. Gold badges, **Constance Miller** (age 12), New York; **Margaret McEntee** (age 11), New York; **Katharine H. White** (age 14), Massachusetts; **Nancy Hough** (age 11), New York.



BY GWENDOLYN LONGYEAR, AGE 14.



BY RICHMOND A. EDWARDS, AGE 13. (SILVER BADGE.)

"OUR CHURCH."

THE SONG OF THE TREES

BY BEATRICE CALDWELL (AGE 13)

(Silver Badge)

When the dusk of the twilight deepens,
 When the stars come out in the blue,
 And the sultry air is freshened
 With the damp of the forming dew;

When the fireflies light the clover,
 And the hush of the night is still,
 Then softly the breeze comes sweeping
 From the haunts of the woodland hill,

Till, thrilled with the greatness of heaven,
 But chording the sorrows of men,
 The bards of the centuries, bending,
 Touch their moss-covered harp-strings again.

And sweet to the world is their music,
 The boughs lifting to and fro,
 Rustling, sighing, and sobbing,
 Incessantly murmuring low

The tales that the winds have brought them,
 From afar over land and sea;
 And the tale which best pleaseth thy fancy
 They tell it, alone, for thee.

And ever the deep green coolness
 From self bringeth sweet release;
 For through it, fantastically woven,
 The refrain is a soft, healing peace.



"OUR CHURCH." BY HARRIET G. GUILD, AGE 16.

A GOLDEN OPPORTUNITY

(Told by a mouse)

BY JEAN F. BLACK (AGE 15)

(Gold Badge. Silver Badge won September, 1915)

My name is Minnie Little-Mouse. I am only three weeks old, which may account for a very stupid and cowardly thing I did the other day.

I was walking along the lower shelf in the pantry when I scented cheese, which seemed to be in the ice-box. I scampered across the floor, and directly in front of my private entrance to the ice-box I found what I was looking for.

My first impulse was to grab it, but then I noticed it was not on the floor but lying on a strip of board which had some wires attached to it, so that it looked as if one of my numerous relatives had started to build a house and had been called away while eating a

piece of cheese. Knowing how I should feel if my cheese were stolen under such circumstances, I ran home and left it.

When I got home I told my brother Tommy about it and he said:

"I bet that cheese did n't belong to any one, and, if it's still there, I'm going to have it." So off he went.

About an hour later, Mother became anxious, and sent me to find Tommy. I went straight to the ice-box, and there was my poor brother lying dead on the board. The half-built house had fallen just as he had taken the cheese.

I shall always feel that if I had taken the cheese when I found it, instead of leaving it so that Tommy was caught just as the "house" fell, we would still have him with us. It does n't seem quite fair that Tommy should suffer through my not taking advantage of a golden opportunity.

A GOLDEN OPPORTUNITY

BY DOROTHY F. PATTON (AGE 14)

(Silver Badge)

THE central street of — village lay exposed to the intense heat of a July sun. Barbara, swinging lazily in the hammock, was reviewing for the twentieth time her lost pleasures. A sudden fall, a broken bone, and her dream of a jolly summer had disappeared.

"But, Mother, such a golden opportunity gone!" she had cried, and her mother's sympathy was of no avail.

Suddenly she straightened up and gazed intently down the street. Hanging listlessly on a gate, little Carolyn was swinging back and forth; farther down, Edwin Brown was playing indolently in the dirt; and almost at the end of the road, Jean Marden sat spiritlessly on her steps, playing with her dolls. The lack of joy was very apparent, and Barbara's busy brain was soon devising plans for means of diversion.

It was another burning day, but the once empty street was now dotted by groups of children, all pursuing their steps in one direction—Barbara's home. All of them, little or big, had smiles on their faces. At Barbara's house they were received with great hospitality, and there was not an unhappy moment afterward.



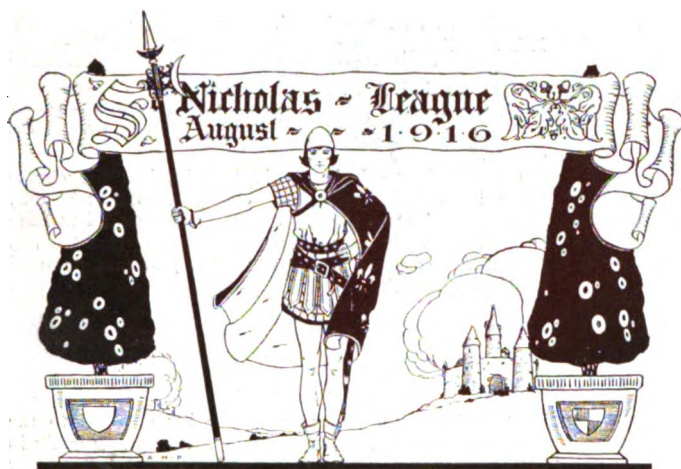
"OUR CHURCH." BY GERALDINE KIMBERLY, AGE 14.

When it was all over, and the little ones had bidden a bashful farewell, Barbara and her mother sat together in the falling twilight. A night-bird sounded its call, frogs croaked from a neighboring pool, and the moon shed a pale radiance over the tired world.

"Mother," the girl whispered, "I've been thinking

that perhaps what I thought was a *golden* opportunity was really *brass*, and the true one is nearer home."

The mother only stroked the girl's head, but her face, hidden by the shadows, was glowing.



"A HEADING FOR AUGUST." BY ARTHUR HOLT PALMER, AGE 16.
(SILVER BADGE.)

A GOLDEN OPPORTUNITY LOST

BY MARTHA A. WILLIAMS (AGE 17)

(Silver Badge)

"God save Elizabeth!" roared the crowd, as a coach, proceeding slowly up the street, reflected all the gleams of the noon-day sun on its burnished surface. "God save the queen!" the people cried again, as the glittering equipage drew nearer and nearer.

Little Roger Harland, standing on the very edge of the dense crowd, clutched his flowers tightly as the great coach moved slowly toward where he stood. He looked down nervously at the little bunch of daffodils and violets which he held. They hung rather limp in his warm little fingers, but to his eyes they were as



"READY FOR THE RIDE." BY CHARLOTTE BECKER, AGE 15.
(SILVER BADGE.)

fresh as when he had plucked them in his mother's garden at sun-up. Only a little down the street people were throwing blossoms at the open window of the coach.

"God save the queen!" shriled a lean apprentice at Roger's elbow, and the cry was taken up by all the people round. Roger clutched his flowers and stepped forward slightly. There she was—the queen! Her lap

was heaped with bouquets, and she bowed to the right and left as the coach moved between the ranks of people. She was looking toward him—Roger gasped, his flowers forgotten—her eyes met his, and she smiled!

Everything became a blur to the little boy, and when he looked again the coach had passed on, and up the street people were still shouting and throwing nosegays at the open window. He walked slowly away from the huge crowd, and that night, before his mother blew out the candle, he gazed long at a bunch of faded daffodils and violets which he still held in his hot little hand.

A GOLDEN OPPORTUNITY

BY RICHARD SOMERVILLE CAREY (AGE 9)

(Silver Badge)

My home in the foot-hills is rather isolated, so I have never been able to attend school; but Daddy and Mother teach me. Last summer they planned to take me to the San Francisco Normal School. The school was only open during the morning, so in the afternoon we went out sight-seeing.

One day we thought we would like to go across the bay to Oakland. Going up in the car we remembered there was an observatory here, which was interesting to me, as I have a small telescope of my own.

At the observatory there was no response to our knocking, but, after walking around a little, a gentleman came out—the director himself. Mother asked him if we could look through the telescope, and he said that no children under fifteen were allowed. Mother said that I studied the stars and did not have many chances to look through a big telescope. Finally he said we could come at eight o'clock, and, if it was foggy, on some other night. This was our "golden opportunity."

We wondered what we would do to pass the time, as it was only three o'clock. We took a car to a part of Berkeley where there is a fine view. After remaining there a short time we returned to the observatory early in the evening, for it promised to be a fine, clear night.

The telescope was a four-inch one. At the exposition there was a twenty-inch one, which will be installed in a newer and finer observatory that is being built. We saw Epsilon Lyræ a quadruple—this I have seen as a double through my own telescope. We also saw a very mountainous part of the moon. After thanking the director for his kindness when we left, we were met by the fog rolling, which, in a few minutes, completely obliterated the stars.



"A HEADING FOR AUGUST." BY MURIEL
W. CURTIS, AGE 14.



BY GERTRUDE CUTHBERT, AGE 14.
(SILVER BADGE.)



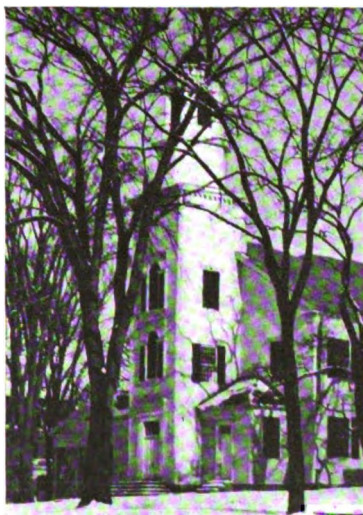
BY LILLIAN EDWARDS, AGE 14. (SILVER BADGE.)



BY JUNE JOHNSON, AGE 12.



BY RICHARD AMM CUTTER, AGE 13.
(SILVER BADGE.)



BY COLIN C. STEWART, JR., AGE 14.



BY AMY HAMPTON MEDARY, AGE 12.
(SILVER BADGE.)



BY BENJAMIN THORNDIKE, AGE 11.



BY LYMAN G. GILMORE, AGE 14.

"OUR CHURCH."

A SONG OF THE TREES

BY HARRIET T. PARSONS (AGE 14)

(Gold Badge. Silver Badge won December, 1914)

When the sky is clear and blue, 'sh! 'sh!
 And the breeze comes dancing through, 'sh! 'sh!
 Through our branches and our leaves of deepest
 green,
 Then we're happy as can be, 'sh! 'sh!
 And we whisper, full of glee, 'sh! 'sh!
 "Oh! is n't it the nicest day that e'er was seen?"

When the sky is dark and gray, swish! swish!
 And our branches start to sway, swish! swish!
 In the wind which comes a-whistling through the air,
 Then the rain begins to pour, swish! swish!
 And we hear the thunder roar, swish! swish!
 Oh, we love the storm, but dread the lightning's glare!

A GOLDEN OPPORTUNITY

BY MARGARET KLEIN (AGE 14)

(Silver Badge)

THERE was a guest at Colonel Ford's to-day, and little Bobby was so excited that he could hardly sit still at the dinner-table, for the guest was none other than Lieutenant Harding, an expert aviator. Bob's long-cherished wish had always been that some day he might have a ride in an aeroplane and fly above the earth like a bird.

"Yes," he heard Lieutenant Harding say, "I start off to-morrow morning at five o'clock sharp; of course, Colonel, you are coming along."

Ah! Bobby would like to see that aeroplane.

The next morning very early, about four o'clock, he rose and slipped out of bed and quickly dressed himself. Then he ran down-stairs into the back yard, and there stood the aeroplane all ready for flight. He had only come down to look at it, but now he determined to carry out his long-cherished plan. No one was

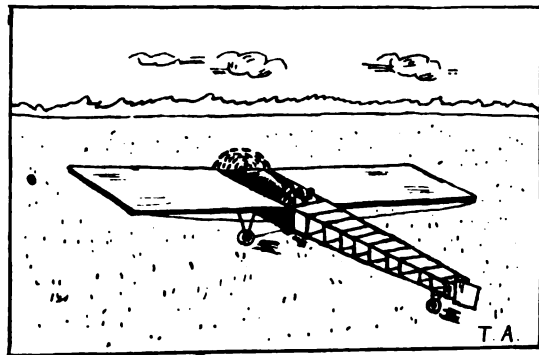


"READY FOR THE RIDE." BY MARGARET HANSCOM, AGE 17.
 (HONOR MEMBER.)

around; here was a golden opportunity, and it must not slip by. Bobby could no longer resist, and in a moment he was hidden under a large blanket. Just then sounds were heard, they were coming. Bobbie's heart thumped so fast and loud that he was sure they would hear it. Suddenly the aeroplane rose from the ground, higher

and higher it went, way above the earth. How dizzy he felt, and his head ached, his little body trembled. Now they were passing a river, now mountains and hills, but, oh! he felt so sick, so queer all over, he could no longer stand it; from the pale quivering lips came an audible groan.

Colonel Ford turned around quickly. "There's some one here!" he said, lifting up the cover, only to behold his own son, pale and ill. He was soon seated beside his father covered in a warm woolen blanket, and it



"READY FOR THE RIDE." BY TONY AIELLO, AGE 14.

was wonderful how rapidly he found himself reviving. He inhaled large whiffs of fresh air. Now they were descending, Bobby was almost sorry, but once he stood on the firm ground, there was not a happier boy in Virginia.

"Whew!" he whistled; "never again. Good old mother earth is good enough for me."

A SONG OF THE TREES

BY SARAH F. BOROCK (AGE 15)

(Honor Member)

I

Long, long years had they sighed their story
 To sea-bound wind and to studded sky.
 In the autumn breezes had blazed their glory,
 Through their gaunt, gray limbs had the snows swept
 by.
 They had crowned the hill and screened the ledges,
 And the moonbeams whitened their sentinel lines.
 Gold-green they had fringed the clear pool's edges.
 At noon, through the dusk of the scented pines,
 Came the song of the thrush. And a bright-winged fellow
 Would whirl o'er the wind-swayed reeds below
 When the trees were bathed in soft shafts mellow
 Of afterglow.

II

The long, green aisles are seared and broken;
 The pool is choked with the crisp, burnt leaves;
 And the fierce flame's tongue has left its token
 In yon ash-grayed branch that shakes and grieves.
 Vanished each vestige of vaunted splendor;
 Scarred trunks, scorched hollows—these dim the sky.
 Like a jet-cased spire, sharp, tall, and slender,
 A blackened tree-top is reared on high.
 The lone, green life is the thorny thistle.
 A lone shrill rook mocks sun and rains.
 And the wild wind sweeps with a dreary whistle
 Through charred remains.

DE SONG IN DE TREES

BY ANN ELIZABETH SHEBLE (AGE 13)

(Silver Badge)

De sunlight am fadin',
Soft de breezes blow,
And whisper 'mong de pine-trees
A song ob long ago.

A song ob long ago,
When spring was in de air,
An' mah honey was a-livin'
In de cabin ovah dere.

She 'd cum heah ev'ry night,
Wid a smile in heh eye.
She 'd sit right down beside me;
Happy den was I.

Mah honey now has gone
Where I 'll neveh see heh mo',
An' I hev t' sit alone
On de bench by de do'.

All dat 's lef' fo' me,
Is de sof' an' whisperin' breeze,
A-singin' ob mah honey
In de ole pine-trees.

A GOLDEN OPPORTUNITY

BY MYONA DAVIDSON (AGE 14)

"CINDY! Some one 's at the door! Wipe your eyes and see what they want, child, and I 'll hold the horses." The red-eyed Lucinda departed hastily to do her mother's bidding.

At the door she confronted a handsome lady attired in motor-coat and veil, carrying a dress-bag. The woman seemed to be much disturbed about something, and she anxiously inquired if she might use the telephone.

"I 'm sorry, but we don't have a telephone," replied the girl. It was two miles to the next farm, and the information seemed to worry the stranger greatly.



"OUR CHURCH." BY CAROLINE OLMSTED, AGE 14.

"I *must* get to Darwin by two-thirty, and my car broke down a short distance away, and—"

"Oh, ma'am, perhaps Mother and I could take you along with the butter and eggs. We 're going right now."

"Oh, could you? Is there room?" she eagerly inquired.

"Well, I reckon I could stay at home," the girl replied, as she led the way to the buggy.

The strange lady would not hear to Lucinda's remaining at home, but insisted upon holding the girl on her knee. "Now," said Mrs. Martin, in open curiosity, "since you 're settled, perhaps you 'll tell us who you are?"

"I beg your pardon, friends, but I 've been so anxious to reach the city that I have neglected to introduce myself. I am Martha Hoffman."

"Are you—Martha—I mean Madam—Hoffman?" broke out Lucinda.

"Now that 's just like Lucinda," explained her mother, apologetically; "she 's been having a fit all week because I can't afford to let her go to the concert this afternoon."

It is needless to say that Lucinda Martin attended the concert. There were many who heard the great singer, but Lucinda was the only one who could boast of a five-mile drive seated on the prima donna's knee.



"A HEADING FOR AUGUST." BY HELEN JOHNSON, AGE 13. (GOLD BADGE. SILVER BADGE WON OCT., 1915.)

A SONG OF THE TREES

BY EMILY ROSS (AGE 13)

(Silver Badge)

ONE day I stood beneath the trees
And listened as the morning breeze
Set their leaves a-dancing.

Then, as the wind blew stronger still,
The trees responded to his will,
And sang this song entrancing:

"Last night, when the moon was high in air
And stars were twinkling everywhere,
The fairies all came out to play
And frolicked till the break of day.

"Their gauzy wings of rainbow hue,
A-sparkle with the diamond dew,
Flitted in the changing light
Cast by the lanterns of the night.

"The intrigue of a mortal's court,
The pranks of Puck and all his sort,
A living drama for us made,
As through the night the fairies played.

"But hark! there fell upon the ear
The challenge of Sir Chanticleer!
The queen, with all her court array,
Had vanished at the dawn of day."

THE SONG OF THE TREES

BY MARY-ELEANOR ABBOTT (AGE 13)

(Silver Badge)

WHEN soft white snow lies over the ground,
 And the night-wind rides on high,
 Blowing the thick black clouds that float
 In the January sky;
 Then the song of the trees is a wild, low moan,
 A ghostly, wandering sigh—
 And a horrible, wailing groan shrills loud
 As the last dead leaves whirl by.

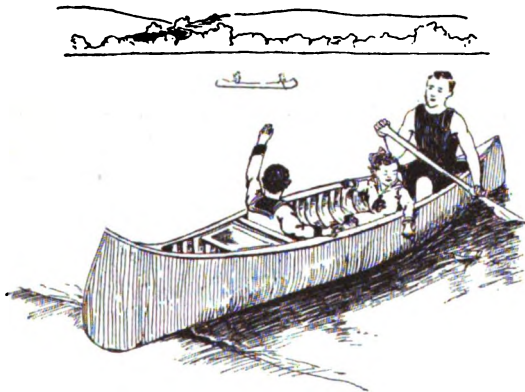
When the leaves on the trees and the grass on the ground
 Show green in the light of the sun,
 And the brook's babbling song as it rushes along
 Gives proof that the summer 's begun,
 Then the song of the trees is a happier one,
 A rustling and whispering rhyme,
 To birds caroling glee as they wing their way free,
 With the brook's happy song keeping time.

HER GOLDEN OPPORTUNITY

BY ROSE D. SCHWARTZ (AGE 14)

SINCE the time when Annie was old enough to understand what education meant, she was eager to go to school. Her father, however, could not afford to pay about forty rubles or so a year to educate her. Besides, being a Jewess, she had no opportunity to learn at all. So Annie was forced to content herself with standing near the school-gate and watching reverently the haughty *gymnasits* (scholars) pass.

When Annie was about twelve years of age, she and her family emigrated from Russia to America. When they arrived at New York, it seemed to Annie very wonderful that she need not watch by the school-gate any more, but might boldly enter that holy of holies.



"READY FOR THE RIDE." BY HARLAN HUBBARD, AGE 16.
 (GOLD BADGE. SILVER BADGE WON APRIL, 1914.)

Annie resolved inwardly that she would make the best of this golden opportunity. At first it seemed very hard. She was put in a class with little children, and, as she had no friends, felt very lonely. The unsympathetic girls of the higher grades used to ridicule her, terming her a "greenhorn." Annie never quarreled with them for these abuses, but went home and cried herself to sleep.

Little by little, however, she began to understand the common phrases. Arithmetic and spelling she grasped quickly. When Annie began to read books, she became

exceptionally bright in all her studies. The teachers realized this and "skipped" her rapidly. The fame of her "smartness" spread in the school. Girls who had ridiculed her formerly came to her for help when any difficulty in the home work presented itself. In two years she was graduated from public school with high honors. She entered high school. There, also, by her efforts, she became a brilliant student.

She made the best of her golden opportunity.



"OUR CHURCH." BY ELEANOR MACY EVANS, AGE 15.

A SONG OF THE TREE

BY EDITH VERNON M. SIMMONDS, II (AGE 15)

I SING of the great, blue arch of sky,
 With the clouds, like ships, a-sailing by;
 Of warm, green Mother Earth below,
 And all the things that live and grow.

Of the nesting-bird's glad melody,
 And the secrets of the honey-bee.
 My face is washed by summer showers,
 And at my feet grow woodland flowers.

In winter my blanket is soft and white,
 The sun, the moon, and stars, my light,
 And around the world the four winds blow,
 And carry me tidings to and fro.

My food, the earth, my drink, the rain,
 With naught to lose, and naught to gain.
 And here I shall stay 'til my work is o'er,
 And the Master of all shall need me no more.

THE ROLL OF HONOR

No. 1. A list of those whose work would have been used had space permitted.

No. 2. A list of those whose work entitles them to encouragement.

PROSE, 1

Marjorie Spring	Emilia F. Belknap	Alfred S. Valentine
Dora Sussman	Florence W.	Sarah Richards
Dorothy Hinmon	Nightingale	Mona Harrop
Gladys M. Smith	Margaret E. Letzer	Jeanne V. Hugo
Rebe Strickland	Gerald Kirby	Miriam S. Lewis
Ruth E. Baker	Reba G. Gray	Adèle L. Mellen
Hollis Hedberg	Ruth Brindze	Caroline Cosgrove
Ruth E. Baker	Nanette Desenberg	Elizabeth C. Gay
Walter Hanlon	Freda Melnik	Ruby E. Merrill
Helen R. Spencer	Jennie M. Dennig	Naomi Storer
Kathryn A. Lyon	Grace W. Myer	Horton Jacques
Wilhelmina Mead	Marjorie Yates	Gertrude Nelson
Mary P. Bray	Lois Meier	Virginia M. Quick
Florence G. Sheevin	Eileen Hayes	Dorothy L. Tait
Ellen M. Wales	Katharine Van R.	Nell Hiscoc
Helen A. Koch	Holste	
Florence Clothier	Gertrude Whiton	
Rose Fletcher	Adelaide Reilly	
Leo J. Prindville	John S. Kieffer	
Marion M. Martin	Carl Schuster, Jr.	
Anna E. Warren	Beatrice H.	
	Lowenthal	

VERSE, 1

Louise Guyol, 2d
Rebecca Emery
Marjorie Seligman
Alice Bever

Marthedit Furnas
Miriam Simons
Yvonne N. Smith
Elizabeth E. Clark
John D. Cox
Elsie L. Lustig
Margaret
Huntington
Lillian Eichler
Elizabeth Doyle
Elizabeth Gerould
Madeleine Smith
Charlotte Antonisen
Ruth Parmly
Katherine B. Fite
Laura P. Bliss
Elsa Doerner
Marjorie Dahut
Babette H. Plechner
Eunice W. Thompson
Frances M. Segner
Holly F. Wilcox
Valentine
McGillycuddy

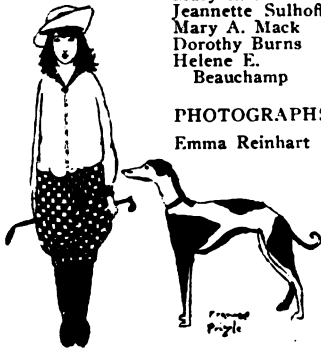
Charles Ray
Harriet James
Loretta Bogue
Louise S. May

Edith Showers
Thomas Blair
Mary A. McLarney
Muriel W. Koelsch



"READY FOR THE RIDE." BY ELIZABETH STEARNS, AGE 17.

Jean Harper
Muriel Gallagher
Leota Lohr
Fred V. Hebard
Dorothea Richards
Frances B. Baskin



"READY FOR THE RIDE." BY FRANCES PRINGLE, AGE 13. (SILVER BADGE.)

Virginia Moldrup
Esther Rice
Gladys Fliegelman
Miriam S. Fletcher
Helen L. Knight
Theodore Johnson
Mary E. Askew
Jeannette Sulhoff
Mary A. Mack
Dorothy Burns
Helene E.
Beauchamp

PHOTOGRAPHS, 1
Emma Reinhart

Susan Valentine
Ford Stewart, Jr.
Frances Boyd
Alice Lee Hall
Alden Jones
Mary A. Jewett
Louise B. Church
Wilfred Kimball
Margaret Fernau
Constance M.
Alexander
Olive Haskell
Jeanne Russell
Marshall Phelps
Vera Sillman
Constance Crumie
Nancy Rhodes
Virginia Palmer
May D. Palmer
Elizabeth Knabe
Elsie Stuart
Eda McCoy
Ella Huber
Betty Lowe

PUZZLES, 1

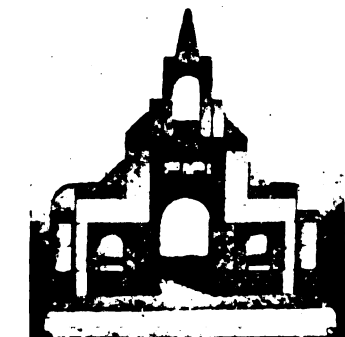
Louis Burt
Gladys H. Pew
Emily Pendleton
Hubert Barentzen
Edward Hoopes, Jr.
Mary C. Hamilton
William Penn
Richard S. Angell
Warren H. Corning
Patricia Merriman
John Bates

Easton Noble
Ruth Adams
Harriet Bakewell
Anna S. Chase
Margaret M. Stern
Paul Sinclair

Mary S. Benson
Elizabeth Carmalt
Adam Hampton
Dora E. Miller
Agnes Law
Nancy S. Weaver
Jessie M. Thompson
Hester A. Emmet
Grace Wickham
Marion West
Mary Lockett
William M. Paisley
Helen A. Morgan
Eleanor S. Towne
Eleanor M. Peters
Katharine Putnam
Alice Griggs
Betty H. Camahan

DRAWINGS, 1

Margaret C. Shaw
Lucie C. Holt
Virginia Gardiner
Frances H. Lenz
Stephens Wright
Ellen Le Count
Elberta L. Esty
Esther J. Wilcox
Grace F. Holcomb
Marjorie Bartlett
N. D. Hagan
Naomi Brackett
Helen C. Davies
Harriet Fargo
Lucy F. Rogers
George A. Kass
John Ashby



"OUR CHURCH." BY S. RAYMOND EDDY, AGE 15.

Marion M. Black
Marian Wenrich
Edith A. Lukens
Lionel Anderson
Annette Horgard
Lamphear Buck

Janet Johnson
Marjorie H. Probasco
Joyce W. Butler
Brainard Graves
Frances Sorzano
Eleanor Cook

W. Norris Tuttle
Theodore Tompkins
Kathryn Logan
Jacques Ach
Elinor M. Parker
Gratia Maynard
Donald Edgar
Hilda Pfeiffer
Gordon Wier
Sylvia Sayre
Miriam Helfman

Barbara McKenney
Helen E. Sanderson
James Norie
Edith C.
McCullough
Dorothy Williams
Richard Pomeroy
Dorothy Hilton
Gioconda Savini
Joanna Sargent
Virginia Sargent

PUZZLES, 2

Lester M. Townner
Lavina Skeer
A. Kass
Marie Merritt
William Huyler
Betty Berger
Paul C. Nugent, Jr.
Carol Kaufman
Elaine M. Salida

PRIZE COMPETITION No. 202

THE ST. NICHOLAS LEAGUE awards gold and silver badges each month for the best *original* poems, stories, drawings, photographs, puzzles, and puzzle answers. Also, occasionally, cash prizes to Honor Members, when the contribution printed is of unusual merit.

Competition No. 202 will close August 24 (for foreign members August 30). Prize announcements will be made and the selected contributions published in ST. NICHOLAS for December.

Verse. To contain not more than twenty-four lines. Subject, "The Spirit of Christmas," or "Peace Has Her Victories."

Prose. Essay or story of not more than three hundred words. Subject, "My Favorite Episode in History," or "A Historic Christmas."

Photograph. Any size, mounted or unmounted; no blue-prints or negatives. Subject, "Busy," or "A Historic Spot."

Drawing. India ink, very black writing-ink, or wash. Subject, "Admiration," or "Christmas Carols," or a Heading for December.

Puzzle. Any sort, but must be accompanied by the answer in full, and must be indorsed.

Puzzle Answers. Best, neatest, and most complete set of answers to puzzles in this issue of ST. NICHOLAS. Must be indorsed and must be addressed as explained on the first page of THE RIDDLE-BOX.

Wild Creature Photography. To encourage the pursuing of game with a camera instead of with a gun. The prizes in the "Wild Creature Photography" competition shall be in four classes, as follows: *Prize, Class A*, a gold badge and three dollars. *Prize, Class B*, a gold badge and one dollar. *Prize, Class C*, a gold badge. *Prize, Class D*, a silver badge. But prize-winners in this competition (as in all the other competitions) will not receive a second gold or silver badge. Photographs must not be of "protected" game, as in zoological gardens or game reservations. Contributors must state in a few words where and under what circumstances the photograph was taken.

No unused contribution can be returned unless it is accompanied by a self-addressed and stamped envelop of the proper size to hold the manuscript, drawing, or photograph.

RULES

ANY reader of ST. NICHOLAS, whether a subscriber or not, is entitled to League membership, and a League badge and leaflet, which will be sent free. No League member who has reached the age of eighteen years may compete.

Every contribution, of whatever kind, must bear the name, age, and address of the sender, and be indorsed as "original" by parent, teacher, or guardian, who must be convinced beyond doubt—and must state in writing—that the contribution is not copied, but wholly the work and idea of the sender. If prose, the number of words should also be added. These notes must not be on a separate sheet, but on the contribution itself—if manuscript, on the upper margin; if a picture, on the margin or back. Write or draw on one side of the paper only. A contributor may send but one contribution a month—not one of each kind, but one only; this, however, does not include the "advertising competition" (see advertising pages) or "Answers to Puzzles."

Address: The St. Nicholas League,
353 Fourth Avenue, New York.

THE LETTER-BOX

By an accidental oversight, the illustration for the story of "A Farm that was Won in a Walk," printed in the July number, was wrongly attributed to Frank and Allie Dillon. It was really drawn by Helen Mason Grose. We take the first opportunity of correcting the error, with due regrets and apologies.

THIS bewitching little picture showing that "it is never too early to begin to read St. NICHOLAS" comes to us from Chicago, and we beg to express our thanks to Mr. R. T. Stanton of that city, both for the winsome photo-



graph of the charming wee baby, which will delight all our readers, and for the pretty compliment to our magazine.

DEAR ST. NICHOLAS: I am a girl in China. I go to school with five other children; my mother's is the teacher. I am very interested in your magazine.

I have been to a beach to spend the summer, and my brother has learned to swim very well. I have only just come back from the seaside.

I have very few friends in China. My brother has twelve chickens, eleven hens, and one rooster. The hens lay six eggs a day.

Yours devotedly,

ESTHER HIBBART (age 9).

HOLLYWOOD, CAL.

MY DEAR ST. NICHOLAS. I have taken your magazine for three years. Every year it has been a Christmas present from my uncle. We are refugees from Mexico, and have been here three years. I sometimes wonder how I ever got along without you in Mexico. We lived in Mexico City for eight years, and then we moved to Jalapa in the mountains, four hours' ride on the railroad from Vera Cruz.

The picture of a patio which illustrated "Chained Lightning" in the August magazine of 1915 is that of a hotel in Cuernavaca in which I have lived many months with my mother and nurse. The then owner, a personal friend of ours, is now living in Los Angeles, California. He is an American; and when the revolution broke out, he sold the hotel to a Mexican. Cuernavaca in Spanish means "cow's horn." All my relations scold me because I am forgetting how to read, write, and talk in Spanish.

Sincerely,

MARIGUITA SPILLARD (age 12).

ORANGEVILLE, ONT.

DEAR ST. NICHOLAS: I have been reading the letters that the boys and girls write to you about their pets, so I thought I would write about mine. I have a dog and a cat. The dog's name is Algernon Percival McCallum Lewis, and the cat's name is Simpkins. Algy is a very friendly dog and would not bother the cat. But Simpkins is very jealous of him and slaps him in the face with his paw every time he comes near. If we feed the dog first, Simpkins gets cross and goes under the stove and pouts. Algy was my brother's dog, but he is gone away to be an officer in the Canadian army. Algy misses him very much. He goes to the bank where my brother used to work to look for him every day. I have two other brothers at the front now, one has been wounded but is better.

I have only been taking your magazine since Christmas, but I like it very much. And my friends like it just as much as I do.

Yours sincerely,

GORDON LEWIS (age 11).

UNALASKA, ALASKA.

DEAR ST. NICHOLAS: I live up here in the Jesse Lee Home, on the little island of Unalaska, east of Japan. We are surrounded by the ocean and mountains.

In the winter-time we don't have any steamers here except the mail boat that comes once a month.

But in the summer-time we have quite a number of boats. There are the cutters and the mail boat and other boats. We have a lot of fun here in this home.

The summer-time here is beautiful. Everything is green and the flowers are in bloom.

There are four steamers in the harbor. There is the *Goliath*, the *Elihu Thompson*, a Russian war-ship, and the *Dora*. It is a great event when the *Dora* comes in because we are all so anxious to get the mail.

Last night we saw a ship coming in, and of course we thought it was the *Dora*, because we were expecting her, but we found that it was the Russian war-ship.

We went down to see the hole in the *Elihu Thompson*.

She got jammed in the ice and it made a hole right in the side of her. There was a lot of water inside the boat, and when she was here at the dock the water kept going in faster than they could pump it out.

When she was coming here from Lost Harbor, one of the rails was in the water nearly all the time.

They were unloading all day yesterday and they got a lot of the cargo off; but they could n't get it all off because the warehouses here were full.

The mail boat is in now and I am so anxious to get the St. NICHOLAS. I enjoy reading it very much. We have taken it for about four years.

Your faithful reader,

HELEN SWANSON.



HIDDEN WORD-SQUARE. 1. Water. 2. Abide. 3. Tinge. 4. Edged. 5. Reedy.

DOUBLE DIAMOND. Across: *. B. 2. Bah. 3. Tales. 4. Lateral.
5. Befog. 6. Sun. 7. L.

DOUBLE BEHEADINGS AND DOUBLE CURTAILINGS. Farthest North.
 1. Pitfall, aft. 2. Regatta, tag. 3. Spreads, arc. 4. Crystal, sty.
 5. Freshet, she. 6. Lantern, ten. 7. Message, ass. 8. Greater, ate.
 9. Pinnace, Ann. 10. Victory, cot. 11. Steerer, ere. 12. Cheated,
 ate. 13. Whether, the.

ILLUSTRATED PRIMAL ACROSTIC. Fourth of July. 1. Flag. 2. Oboe. 3. Unit. 4. Ring. 5. Tent. 6. Hawk. 7. Oryx. 8. Fans. 9. Jugs. 10. Ulna. 11. Lamp. 12. Yoke.

ZIGZAG. Geography. Cross-words: 1. Games. 2. Felon. 3. Trout.
4. Large. 5. Molar. 6. Atlas. 7. Apple. 8. Check. 9. Young.

SOLVERS wishing to compete for prizes must give answers in full, following the plan of the above-printed answers to puzzles.

TO OUR PUZZLERS: Answers to be acknowledged in the magazine must be received not later than the 24th of each month, and should be addressed to ST. NICHOLAS Riddle-box, care of THE CENTURY CO., 353 Fourth Avenue, New York City.

ANSWERS TO ALL THE PUZZLES IN THE MAY NUMBER were received before May 24 from Constance Miller—Margaret McEntee—Nancy Hough—Katharine Howard White—Helen Adda Vance—Clare A. Hepner—John H. Leury—Frances Babcock—Sally Burrage—M. W. Johnstone—Elizabeth Lee Young—S. T. Dickson—"Rettop"—Mary and Adrian Lambert—Helen A. Moulton—"Alli and Adi."

ANSWERS TO PUZZLES IN THE MAY NUMBER were received before May 21 from Florence L. Carter, 9—Judith Hewat, 9—St. Anna's Girls, 9—Helen H. McIver, 9—Alice Poulin, 9—John P. Helmick, 9—Margaret S. Brown, 9—Dorothy Berrall, 8—Florence Helwig, 8—Helen Van Etten, 7—George Theisen, 7—Arthur Poulin, Jr., 7—Marjorie M. Lounsbury, 7—John M. Pope, 6—Whitney Ashbridge, 6—Sybil Hyde, 5—O. E. Gunn, 1—F. Hugo, 1—M. Lamade, 1—G. P. Asserson, 1—P. Smyth, 1—E. Armstrong, 1—L. L. Fronefeld, 1—W. Brockway, 1—J. B. Wattles, 1.

A A C D D D D E E E E G N V V Y

REARRANGE the above sixteen letters into four words that will form a word-square.

MILDRED DAVIS (age 14), *League Member.*

EACH of the following ten quotations forms the first line of a poem by a famous writer. When the ten poems have been rightly guessed, the initials of their titles will spell the surname of the author quoted.

1. "One hundred years ago and something more."
2. "In the Valley of the Vire."
3. "In the valley of the Pegnitz, where across broad meadow-lands."
4. "By his evening fire the artist."
5. "Spake full well, in language quaint and olden."
6. "The shades of night were falling fast."
7. "Ye voices, that arose."
8. "When I compare."
9. "What an image of peace and rest."
10. "Here in a little rustic hermitage."

JEAN F. BLACK (age 15), *League Member*.

My first is in coffee, but not in tea ;
My second, in ocean, but not in sea ;
My third is in doorknob, but not in key ;
My fourth is in mansion, but not in home :

CHANGED HEADS. I. Mane, pane, lane, cane, bane, fane, sane, wane, Jane, Dane. II. Dun, bun, fun, gun, nun, run, pun, sun, tun. III. Mate, fate, date, gate, hate, late, pate, rate, Kate.

TRANSPOSITIONS. Nathaniel Hawthorne. 1. Pane, nape. 2. Mace, acme. 3. Late, tael. 4. Leah, heal. 5. Tuna, aunt. 6. Tone, note. 7. Side, Ides. 8. Near, earn. 9. Kale, lake. 10. Hare, hear. 11. Mary, army. 12. Paws, wasp. 13. Heat, thea. 14. Hire, heir. 15. Cone, once. 16. Trio, riot. 17. Sewn, news. 18. Vile, evil.

CROSS-WORD ENIGMA. Browning.

CONNECTED SQUARES. I. 1. Rebel. 2. Flate. 3. Bathe. 4. Ethic.
5. Leech. II. 1. Start. 2. Tabor. 3. Above. 4. Roves. 5. Tress.
III. 1. Heart. 2. Enter. 3. Atone. 4. Rends. 5. Tress. IV. 1.
Inert. 2. Never. 3. Evade. 4. Redan. 5. Trend. V. 1. Stamp.
2. Throe. 3. Arena. 4. Monks. 5. Pease.

My fifth is in Britain, but not in Rome ;
My sixth is in hairbrush, but not in comb ;
My seventh, in finger, but not in arm ;
My eighth is in virtue, but not in harm ;
My ninth is in chicken, but not in farm ;
My tenth is in mountain, but not in vale ;
My eleventh, in snowstorm, but not in hail ;
My twelfth is in postman, but not in mail ;
My thirteenth, in baseball, but not in game ;
My fourteenth, in cripple, but not in maim ;
My whole is a city of world-wide fame.

KATHARINE BULL (age 12), *League Member.*

A DOUBLE-POINT PUZZLE

READING ACROSS: 1. In chains. 2. A confederate. 3. A military student. 4. Symmetrical. 5. A running knot. 6. A club. 7. In chains.

READING DOWNWARD: 1. In chains. 2. A common little word. 3. To plunder. 4. To lament. 5. Charge. 6. A division. 7. A Turkish judge. 8. A constellation. 9. Half of a word meaning "harmony." 10. In chains.

WILLIAM PENN (age 13), *League Member.*

GEOGRAPHICAL ZIGZAG

ALL of the places described contain the same number of letters. When these are rightly guessed and written one below another, the zigzag, beginning at the upper, left-hand letter, will spell the name of a famous promontory.

CROSS-WORDS: 1. A city that has been named "La Superba." 2. An African river. 3. A land in central Asia. 4. A city of Egypt. 5. A Russian river. 6. A republic of South America. 7. A city of Montana. 8. One of the United States. 9. A river of Europe.

DOROTHY S. DEAN (age 13), *League Member*.

ILLUSTRATED
NUMERICAL ENIGMA

In this numerical enigma the words forming it are pictured instead of described. The answer, consisting of thirty-three letters, is a quotation from "Much Ado About Nothing."

TRIPLE ACROSTIC

CROSS-WORDS: 1. Smeared with an adhesive substance. 2. A kind of willow. 3. A masculine nickname. 4. The opposite of entad. 5. Unbound. 6. A fabric made of flax.

2. 4. 6 When the foregoing words have been rightly guessed, and written one below another, the letters in the diagram from 1 to 2, from 3 to 4, and from 5 to 6, will each spell the surname of a famous poet.

HUBERT BARENTZEN (age 16), *League Member*.

DIAGONAL

ALL the words described contain the same number of letters. When rightly guessed and written one below

another, the diagonal, from the upper left-hand letter to the lower right-hand letter, will spell the name of a famous man who was born in August, 1809.

CROSS-WORDS: 1. The light perceived after the setting of the sun. 2. To put in good order. 3. A complete view in every direction. 4. During the interval. 5. Manners and dress of a dandy. 6. Fell back into a former bad state. 7. Share. 8. Kinsman.

VERA WATSON (age 16), *League Member*.

A DIAMOND OF DIAMONDS

I. UPPER DIAMOND: 1. In coronets. 2. A fish. 3. Rules or regulations. 4. A cave. 5. In coronets.

II. LEFT-HAND DIAMOND: 1. In coronets. 2. Depressed. 3. Responsibilities. 4. A light moisture. 5. In coronets.

III. RIGHT-HAND DIAMOND: 1. In coronets. 2. A feminine nickname. 3. The Indian antelope. 4. Nothing. 5. In coronets.

IV. LOWER DIAMOND: 1. In coronets. 2. Pallid. 3. A silky fabric. 4. Prong. 5. In coronets.

DOROTHY MANHEIM (age 13), *League Member*.

NOVEL DOUBLE ACROSTIC

(Silver Badge, St. Nicholas League Competition)

ALL the words described contain the same number of letters. When rightly guessed and written one below another, the initials will spell the name signed to many famous stories, and another row of letters will spell one of the stories.

CROSS-WORDS: 1. Keen appreciation. 2. To instruct and improve. 3. One who oils. 4. To resist action by an opposite force. 5. Sudden squalls. 6. An ant. 7. Exalted in spirits. 8. Extensive. 9. Interior. 10. Exposures. 11. Small pies.

JULIAN L. ROSS (age 13).

CONNECTED SQUARES

(Gold Badge. Silver Badge won November, 1915)

1	2	3
4	5	
6	7	8

In solving this puzzle, follow the above diagram, though each word-square in the puzzle contains five five-letter words.

I. 1. Embroidery silk. 2. Supple. 3. Different. 4. A bundle of grain stalks. 5. Slaves.

II. 1. Courage. 2. Senior. 3. Good-by. 4. Staggers. 5. To confide in.

III. 1. A piece of furniture. 2. A collection of maps. 3. Renders indistinct. 4. A young insect. 5. To try.

IV. 1. To move suddenly. 2. A large quadruped. 3. A common fruit. 4. Little brooks. 5. A lock of hair.

V. 1. Flavor. 2. To detest. 3. Luster. 4. An invigorating medicine. 5. Upright.

VI. 1. A banquet. 2. A large bird. 3. To assent. 4. A mixture of hail or snow with rain. 5. Part of a rake.

VII. 1. Dark. 2. A month. 3. To bring up. 4. Faithful. 5. One who is older.

VIII. 1. To brown. 2. Rule. 3. To worship. 4. To attend. 5. Drove up into a tree.

PHYLLIS YOUNG (age 16).



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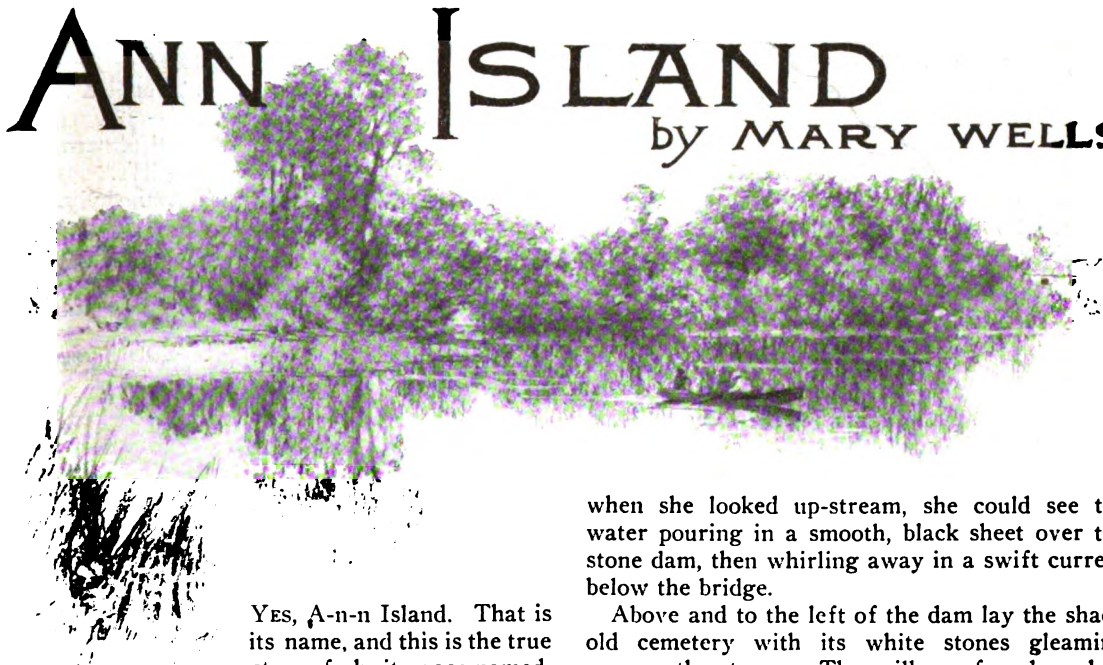
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ANN ISLAND by MARY WELLS



YES, A-n-n Island. That is its name, and this is the true story of why it was so named, and what came of it. The story is in two parts. The first part has to do with what happened to Ann Holbrook twenty years ago, when she was six years old. If you want to know how old Ann is now, you can do a little sum in arithmetic.

Ann lived in Harmony, a beautiful little village divided into two parts by the Seneca River. Ann had no sisters, and Brother Tom was five years older than she, so that Ann seemed to him very young indeed; besides, she was a girl. But Grandfather and Ann were great chums and spent a great deal of time together.

They liked nothing better than to take long walks. Ann's favorite was one leading down to the old bridge which spanned the river. Here,

when she looked up-stream, she could see the water pouring in a smooth, black sheet over the stone dam, then whirling away in a swift current below the bridge.

Above and to the left of the dam lay the shady old cemetery with its white stones gleaming among the trees. The village founders had chosen this peaceful spot in which to lay their dead, unmindful of the fact that they were thus preempting the choicest building lots. At the right of the river stretched a long line of boat-houses, for even twenty years ago Harmony was a great boating town.

But it was the view down-stream that Ann loved best. On the right bank was a group of gracefully drooping willows, whose low-sweeping branches almost touched the water. On the left were the big flouring-mills, whose wheels were turned by the swift-flowing current. In the very center of the stream lay the little wooded island, then nameless, but afterward known to all the people of Harmony as Ann Island.

Ann loved the island, and in fancy peopled it with all sorts of delightful and mysterious creations. Sometimes Grandfather would tell her about the Indians, who used to roam the banks of the Seneca, and camp perhaps on that very island. Ann knew about Indians, and loved to hear her mother read of the little *Hiawatha* and his grandmother, old *Nokomis*, who

Rocked him in his linden cradle,
Bedded soft in moss and rushes
Safely bound with reindeer sinews,

and to know how the little *Hiawatha* learned the names and secrets of all the birds and beasts. So, when Grandfather talked, Ann would picture to herself the painted wigwams among the trees, the faint, curling smoke of the camp-fires, the stolid warriors and the patient squaws with the tiny black-eyed papooses strapped to their backs.

At all seasons the island was beautiful. In winter the snow lay softly on the shrubbery, and the tall trees were flecked with glistening patches of white. When the wind blew, these would drift, eddying through the air, to rest for a second lightly on the water, then disappear. Grandfather, who was Scotch, would quote from his loved Burns:

"Or as the snow falls in the river,
A moment white—then melts forever."

Sometimes in early spring the two would walk down to the bridge on a day when water, earth, and air were all a soft gray color, and the island loomed dimly through the mist. Often on such days the gulls from Lake Ontario, having ventured thus far south, would swoop, and flash, and swirl, and circle above the water in graceful, never-tiring motion.

One never-to-be-forgotten night in midsummer, Ann and her family drove over to a neighboring town to spend the day with friends, and returned to Harmony in the evening, long after Ann's usual bedtime. It was a beautiful moonlight night, and, when they came to the bridge, Grandfather said to Ann, "Suppose you and I walk across the bridge, Ann, and see the island by moonlight."

He got out of the carriage and lifted Ann out, and, hand in hand, they walked along together. The moon was high in the heavens, a big golden ball, and leading straight up to it from the river was a shimmering silvery path. Little white-capped waves danced in the moonlight, and the island seemed to float in a sea of mellow light.

Grandfather pointed to a certain spot. "In that little open space," he said, "the fairies are dancing; only they are so tiny and so far away that we cannot see them. They always hold their

revels on moonlight nights. A gay little elf is seated on a toadstool with his fairy fiddle, and the fairy folk are dancing in a magic circle."

That night Ann dreamed of gay *Titania* and frolicsome *Puck*, of shimmering rainbow garments, fluttering gauzy wings, and shrill elfin music.

So, day by day, the child came to love the island more. Then, one day, she and Grandfather met the little old gentleman with the tall hat. He knew Grandfather and shook hands with him very heartily. He called Grandfather "Jim," and Grandfather called him "Bill," for they had known each other since the time when they were no older than Ann. The little old gentleman had been on a long journey, far away across the big ocean, and he was very glad to be back in Harmony.

"And who is this little lady?" he said, smiling at Ann.

When she told him her name, he smiled again, yet he looked a little sad too.

"Ann!" he said. "That's a beautiful name. It was my wife's name and my little girl's."

"Where is the little girl?" said Ann, shyly. She was thinking how pleasant it would be to play with a little girl who had the same name as she.

The little old gentleman looked off up the river to where the white stones of the cemetery shone through the trees.

"She went away a long time ago, little Ann," he said gently.

He looked so sorry that Ann slipped her hand into his, just as she did into Grandfather's, and they all walked together across the bridge. The little old gentleman held Ann's hand tightly, almost as if he were holding the hand of the little girl who had gone away so many years before.

After that, Grandfather and Ann often met the little old gentleman, so that soon Ann knew him very well.

One day he stopped to talk with them as they stood looking at the island. It was a clear September day, and though it was yet warm, the leaves on the soft maples were already turning so that there were little patches of crimson against the dull green of the other trees. As Ann leaned over the railing of the old bridge, her eyes fixed on the gay coloring, the little old gentleman watched her with kindly eyes.

"So you like the island?" he said finally.

Ann smiled up at him happily. "It's a beautiful island!" she said, so earnestly that Grandfather and his friend both laughed.

For some time the little old gentleman stood looking at the island, then he spoke again:

"How old are you, little Ann?"

At the little old gentleman's question, Ann and her grandfather exchanged glances of understanding, for it made each think of something very pleasant that was going to happen. It was almost as if the little old gentleman had guessed

"It 's my island," he said gravely. "I own it. I 'll give it to you."

"For my very own?" said Ann, breathlessly; "for ever and ever?"

At the child's expression the little old gentleman felt a strange tugging at his heartstrings.

"Yes," he said gently, "for your very own, for ever and ever." Then he said something which Ann did not understand, but which Grandfather seemed to. "I think the island has always been more yours than mine anyway, little Ann." His tone was very tender, and he laid his hand on Ann's soft hair.

Ann's cheeks were pink and her eyes shining. For a moment she was silent, as if searching for words, then she said simply, "Thank you, dear Mr. Bill."

At this Grandfather and the little old gentleman both laughed; and Ann laughed too,—she was so happy.

SATURDAY morning, when the family were all at breakfast, the postman brought the letters. Among them was a long thick envelop directed to "Miss Ann Holbrook." When Ann opened it, she found an important-looking paper with a big red seal. The paper came from the little old gentleman. Ann could not read the big words, but Mother explained to her that the paper was what is known as a deed of gift, and that it gave her the little island for her very own for ever and ever. The paper said, too,

that ever afterward the island was to be known as "Ann Island."

That day was the most wonderful of all Ann's life. Every one had a gift for her, and Brother Tom was so impressed with the fact that she was a property owner and the owner of the island at that, that he treated her with a respect that was quite remarkable, coming from Tom.

In the afternoon, with her family and the little old gentleman, she went down to the river-bank



"AND WHO IS THIS LITTLE LADY?" HE SAID."

what it was. Ann turned to him with the air of one confiding a delightful secret

"I 'm 'most six years old," she said. "I 'm going to be six years old next Saturday!"

"You don't say!" The little old gentleman's eyes twinkled. "Well! Well! I shall have to think of a birthday present. Now—I—wonder—how you would like—the island?"

Ann looked at Grandfather, then at the little old gentleman. What could he mean!

by the drooping willows. Then they were all rowed across to the island. When they landed, the little old gentleman ran up a flag on a flag-staff that was already there, and the island was formally christened "Ann Island."

Then Grandfather and Ann and the little old gentleman explored every nook and cranny, and it was all more wonderful than Ann had imagined, even in her happiest dreams!

Afterward a fire was built and the big ham-



"SHE STOPPED TO LOOK AT THE LITTLE ISLAND."

per was unpacked. After supper, they sat around the fire and told stories, and Mother sang for them—beautiful old ballads which made Grandfather and the little old gentleman wipe their eyes.

Then, when the twilight began to fall and the September evening grew chill, they rowed back to the old willows, and the beautiful day was over.

And this is the story of how Ann Island received its name.

TWENTY years went by. Many changes can come in twenty years. The little village had grown to

a thriving city, for a big construction work had brought many people to Harmony. The old wooden bridge over the Seneca had been replaced by a fine concrete structure, over which ran the new trolley-line with its swift-passing cars.

In the cemetery by the river the little old gentleman had long since been laid to rest by the side of his little girl, and under a group of whispering pines Grandfather, too, slept peacefully.

But, among the many changes, the wimpling river flowed on its way unchanged, and below the dam its current still washed the shores of the little wooded island.

During this time Ann Holbrook had grown from childhood to womanhood, had gone from high school to college, then across the wide ocean to travel and study. When she returned to America, she spent some time in a big city, helping a dear friend in her work among the poor children.

Then, early one summer, she came back to Harmony for a long rest among old friends and familiar places.

One of the first visits that Ann made was to the cemetery along the river-bank. She put big bunches of purple pansies on Grandfather's grave and that of her childhood friend, the little old gentleman. As she went slowly away from the quiet spot, her heart was filled with tender and beautiful memories.

When she reached the center of the town, she turned down a side street to the river, where the drooping willows still stood. Here she stopped to look at the little island. A group of black-eyed Polish children were playing by the water, skipping pebbles and drawing little boats of chips fastened to pieces of twine. Ann spoke to the children. They answered her shyly at first, but, won by the soft voice and pleasant smile, they were soon chattering gaily.

Ann had a secret key to childish hearts.

A man who had been fishing below the bridge brought his rude flat-bottomed boat to shore. An idea came to Ann.

"How would you like to row over to the island, kiddies?" she said.

A shout of joy greeted the suggestion. Ann spoke a few words to the fisherman, then she and the children got into the boat and rowed across the narrow strip of water, leaving the boatman smiling on the bank.

"Ain't this great!" said one little fellow, dabbling his hands in the water. "Sometimes when the water 's low, the big kids can wade right across." He looked regretfully at his own short, brown legs.

"Would n't it be nice if there was a bridge?" said a little girl, smiling up into Ann's face.

Ann nodded rather absent-mindedly. Her thoughts were drifting back to the September day twenty years before, when she had first visited

the children, as it had been to her, it was a magic island. After they had wandered all about it, they sat down under a shady tree by the river-side, and Ann told them the story of that other afternoon so long ago.

"And it belongs to you!" said the little girl in awe-struck tones, and all the others looked at Ann with such respectful interest that she could not help laughing.

Then she told them of the fancies she used to have about the island, and they listened, wide-eyed.

When they rowed back to the mainland, the children all walked with her to the bridge, and called "Good-by!" as she went away.

When she had crossed the bridge, she turned again to wave her hand to the little group who were still watching.

A few nights later, Brother Tom came home with a piece of news. Tom was now a tall young man, with an architect's office in the little city. He no longer thought Ann of little consequence because she was a girl. Indeed, Tom's ideas on girls had changed considerably in twenty years. It was to Ann that he spoke at the dinner-table.

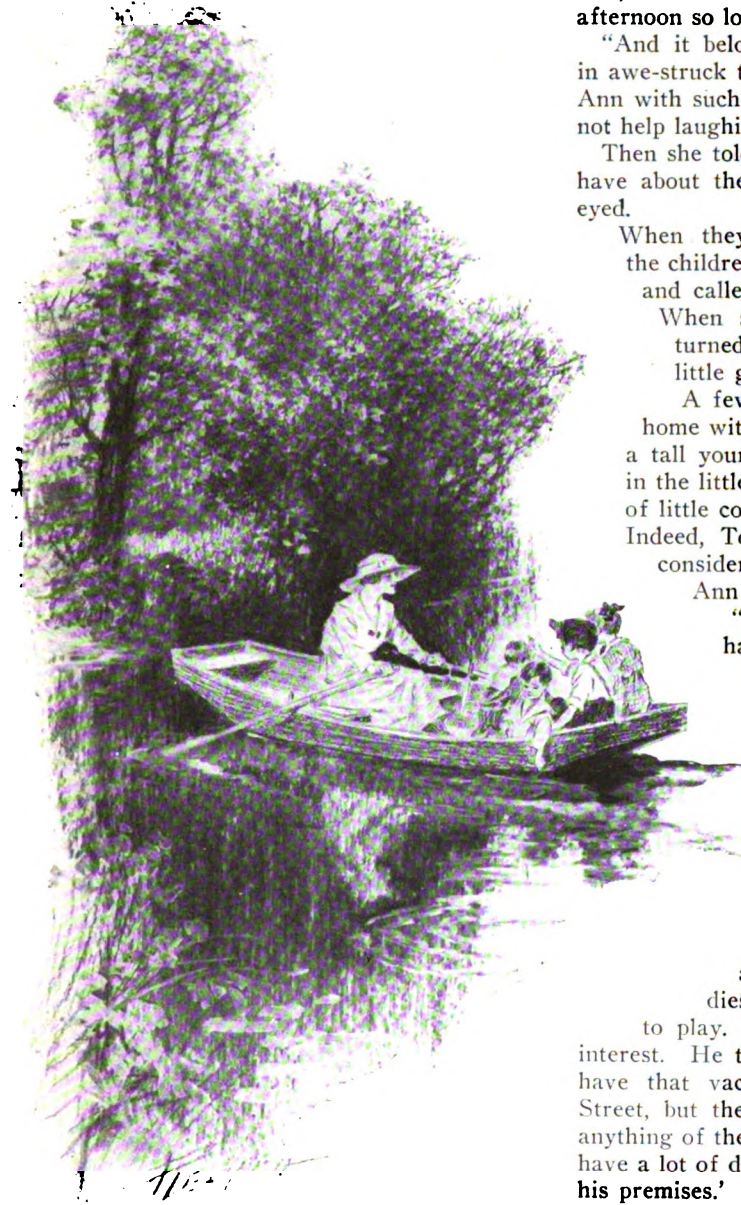
"I guess Jimmie Carmichael will have to give up his plan."

"What plan is that?" said Ann. One of the most charming things about Ann was her genuine interest in everything that interested others.

"Oh, I forgot you are a comparative stranger in Harmony," said Tom. "For a long time, Jimmie has been trying to start a playground for the little Armenians and Dagos and others. Poor kiddies! They have n't any decent place to play. Jimmie has worked up quite an interest. He thought Si Goodell would let him have that vacant lot next to his on Fourth Street, but the old curmudgeon won't listen to anything of the sort; says he does n't propose 'to have a lot of dirty little foreigners traipsin' over his premises.' The city was willing to give him a good price, too. Jimmie's feeling pretty sore." "It is too bad!" said Mother. "It's a shame that Harmony can't provide a place where children can play."

"Tom," said Ann, suddenly, "what would it cost to build a bridge?"

"A bridge?" said Tom. "The cost, my dear sister, depends upon the nature of the bridge. What particular bridge have you in mind?"



"'AIN'T THIS GREAT!' SAID ONE LITTLE FELLOW, DABBLING HIS HANDS IN THE WATER."

the little island. Then she smiled down into the eager little faces.

"We 'll play we 're an exploring party!" she said as the boat grated on the sandy beach.

She smiled again as she found how the little island had shrunk from its former size. But to

Ann smiled brightly. "I mean a bridge to the island, Tommie, down by the willows, you know. You could make the plans, of course. I'm sure old Mr. Hopkins would build it cheaply, and the island would make an ideal playground!"

Tom stared at his sister a moment, then he broke into speech.

"My word, but you're a wonder, Ann! The island's just the ticket! It's a comparatively short distance from the willows to the right bank. With me to donate my valuable services, and old Hopkins to build, we ought to put up a bridge for a little more than we expected to pay for the lot. You see, there would be no money expended for the island.

"Besides, Jimmie Carmichael could wheedle money out of a stone. I'll get him right up here," and Tom made a dash for the telephone in the hall. At the door he paused to call back, "I say, you're a peach, Ann!"

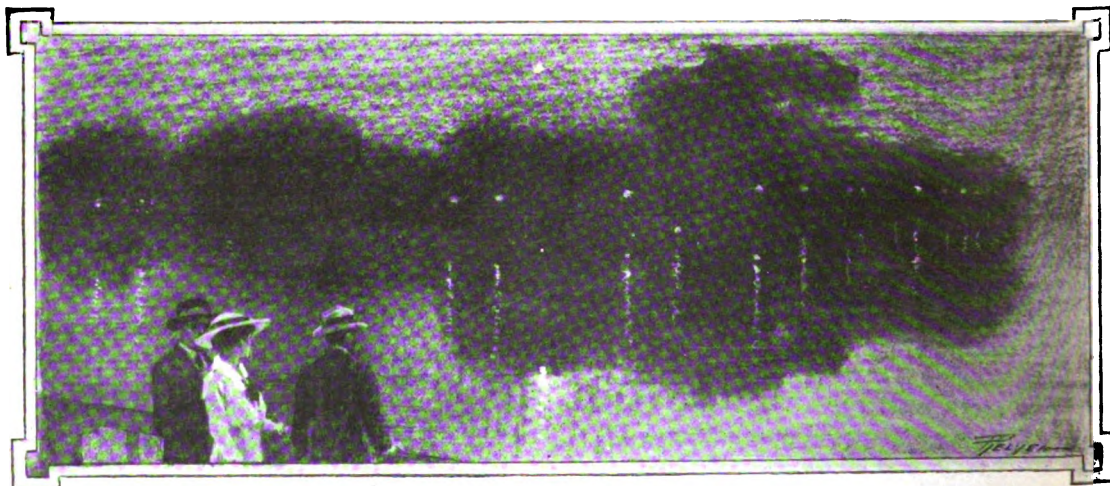
The next weeks were busy ones. As Tom ex-

pressed it, "Between Ann and Jimmie Carmichael, there's no rest for the weary! We eat, sleep, dream, and think *playground*. The whole town's daffy!"

Then came a happy day when again Ann Island was dedicated, this time to the children of Harmony. There were flags and a band, speeches and merry games, and unlimited quantities of cake and lemonade. All Harmony turned out, and all Harmony was happy.

After it was all over, Ann walked home in the twilight with Brother Tom and Jimmie Carmichael. In the center of the bridge she paused to look down the river. From Tom's little bridge the lights were reflected in the water, where they twisted and writhed like golden serpents. The island was dimly outlined against the evening sky. Over it a single star shone brightly.

A little mist came over Ann's eyes, then she said softly, "God bless the little old gentleman!" and, in her heart, she added—"and Ann Island!"



JINGLES

BY LEROY F. JACKSON

THE RUNAWAYS

A PIPE and a spoon and a tenpenny nail
Stole a tin dish-pan and went for a sail;
But the cook he grew curious,
Fussy, and furious,
Gathered his trappings and went on their trail.
He found them that night
In a pitiful plight,
And sent them all home on the ten o'clock mail.

ON THE WAY TO TATTLETOWN

ON the way to Tattletown
What is this I see—
A pig upon a pedestal!
A cabbage up a tree!
A rabbit cutting capers
With a twenty-dollar-bill!—
If I don't get to Tattletown
Then no one ever will.



THE LOST FAIRY

BY GARNET NOEL WILEY



It was morning in the
meadow,
And a mist was on the
leaves,

When I saw a Fairy Lady
Pinning up her dainty sleeves.

She was sitting on a wheat-stalk,
And her hands were dripping wet,
While her troubled gaze went searching
Grass and fern and violet.

"I have looked in all the bluebells;
I have lifted every leaf;
How the Queen could be so careless
Is beyond a maid's belief!

"Who could find a ruby buckle
From Titania's satin shoe
Where a ruby seems to twinkle
Out of every drop of dew?"

"Wait until the sun-
beams dry them,
Little Fairy Maid,"
said I;

"Come, and I will help you find it—"
But she stopped me with a cry,

Sobbing, "Mortal eyes have seen me!
I am touched by mortal hand!
I must lose the path forever
Leading back to Fairyland!"

Then I soothed her and caressed her,
And I stroked her tiny wings;
But I knew I could n't keep her—
Fairies are uncertain things.

So I put her in a poem,
Packed with little buds and dew;
And I tied it with a sunbeam,
And I'm sending her to you!

A SUMMER-NIGHT SONG

BY MAUD GOING

BLACK grows the fir-wood against
the sky,
Out of its darkness the little owls cry,
And the night wind wakes with a long
low sigh.
Pale mist on the river margin lies,
Sweet scents from the dewy earth arise,
And the low fields sparkle with fireflies.

Lullaby.

Now the night-moths wake, and with wavering
flight
Seek the blossoms of darkness—golden and
white—
Shedding their fragrance afar through the night
Sleeping, the water-lilies sway
Where moonlit ripples whispering play,
And little frogs sing till the dawning of day.

Lullaby.

Stars between wind-stirred branches peep
At nests, all cozy, where mother-birds keep
Soft wings spread while their nestlings sleep.
One light shines in the wide dim land
Where a mother is holding a dimpled hand
While a drowsy baby finds slumberland

Lullaby.



AN OIL FIRE.

CURIOUS FIRES

By CHARLES T. HILL

Author of "Fighting a Fire"



A FACTORY FIRE.

ADVICE is dangerous both to give and to follow—sometimes. A farmer living not fifty miles from New York found his barn overrun with rats. After trying the usual means of getting rid of these pests, he followed the advice of a neighbor, and, smearing pieces of food liberally with phosphorus, he scattered the food around in the corners of his barn, closing the place up tight at night. This was bad enough, but nothing happened either to the barn or to the rats. Then another farmer-friend came along and suggested that the proper thing to do was to soak rags in turpentine or kerosene, place them in the crevices and rat-holes, and close the place tightly overnight, claiming that it was a well-known fact that rats or mice would not remain in a building where the odor of either of these fluids was strong. The afflicted farmer followed this advice and was more successful. He applied the turpentine lavishly and closed all the windows and doors in his barn. The night was a sultry one, spontaneous combustion ensued, and he not only got rid of the rats, but his barn and its contents went up in the general blaze that followed.

But this poor farmer with his stupid experiment only discovered what chemists have known for centuries—that fires have many curious and devious ways of starting and many curious ways of acting once they have started. The firemen of our cities have also been brought face to face with this fact many times. It is a common phrase among the more experienced officers of the larger fire-departments that "no two fires burn alike"; and while there are more or less standardized rules for the extinguishment of fire, it is the "unexpected" that may be encountered at any fire. In fact, it is the knowledge of these curious

characteristics, to be looked for at some of the more conventional fires, that gives the experienced fire-fighter his value as a commanding officer. He knows what to expect, under certain conditions, how to plan his fight, place his men, and how to protect them against the attendant dangers of some of the more ordinary types of fires.

A brief review of the peculiar characteristics of some of the more common fires that our firemen are called upon to extinguish almost daily will not only prove interesting reading, but will make us realize that the fire-fighter's task is an extremely perilous one, with the element of uncertainty entering into it to greater degree than the majority of people imagine.

A type of fire that the firemen dread a great deal is a blaze in a cotton-warehouse. These fires generate an immense amount of dense, suffocating smoke, and, because of this fact, have to be fought almost exclusively from the outside of the building. The smoke is of too dangerous a character to allow the men to remain any length of time inside. Therefore the fire-fighting has to be done entirely from the outside, by pouring great streams of water through the windows and doorways until it is finally "drowned out." There is an added danger at fires of this type that is not generally known. The cotton-bales are packed so closely in these buildings, with practically no space between them, and such an enormous amount of water must be used to extinguish the fire, that the cotton absorbs the water and begins to swell. And this "swelling" or expansion of the cotton has been sufficient in a number of cases to force out the walls of the building, causing the structure to tumble into the street,

and within a short time after the outbreak of the fire. This was the case at a fire in a cotton-warehouse in South Brooklyn, several years ago. Within three quarters of an hour after this fire started, although it was in a substantial looking stone building, the walls suddenly bulged out and crashed into the street, and a number of firemen working near by narrowly escaped being killed. The picture just below presents a view of this fire when at its height and shows the manner of fighting it; the picture in the next column shows the other end of the building after the walls had fallen into the street. This second picture gives a very clear idea of how heavy and solid looking the walls were, and how enormous must have been the expansive force of the cotton to cause them to collapse as they did—the only explanation that could be given, by the officials in charge, for the breakdown of the building so soon after the fire started. This same danger is also encountered at fires in malt-houses and grain-elevators, or in buildings where large quantities of grain are stored. These structures are, as a rule, simply very large, shell-like buildings, filled with great bins holding the grain. When a fire gets a firm hold on the inside, the partitions and floor supports burn away, allowing the grain to



FIGHTING FIRE IN A COTTON-WAREHOUSE.

fall to the ground or bottom floor in one enormous pile. Here, saturated with the water thrown on the fire, the grain begins to swell, and

when the firemen notice a peculiar bulging out of the lower part of the building they know it is time to retreat to a safe distance, for this warn-



RUINS OF A COTTON-WAREHOUSE, SHOWING COLLAPSED WALLS.

ing is generally followed by the collapse of the roof and the crashing out of the walls on each side. "Sprinkler-pipes," a device for automatically releasing a spray of water at any part of a floor or loft the instant a fire starts, have done much to lessen some of the dangers of the cotton fire, but in many of the older type of cotton-warehouses not protected in this manner the treacherous peril of the "spreading wall" has to be looked for at any moment.

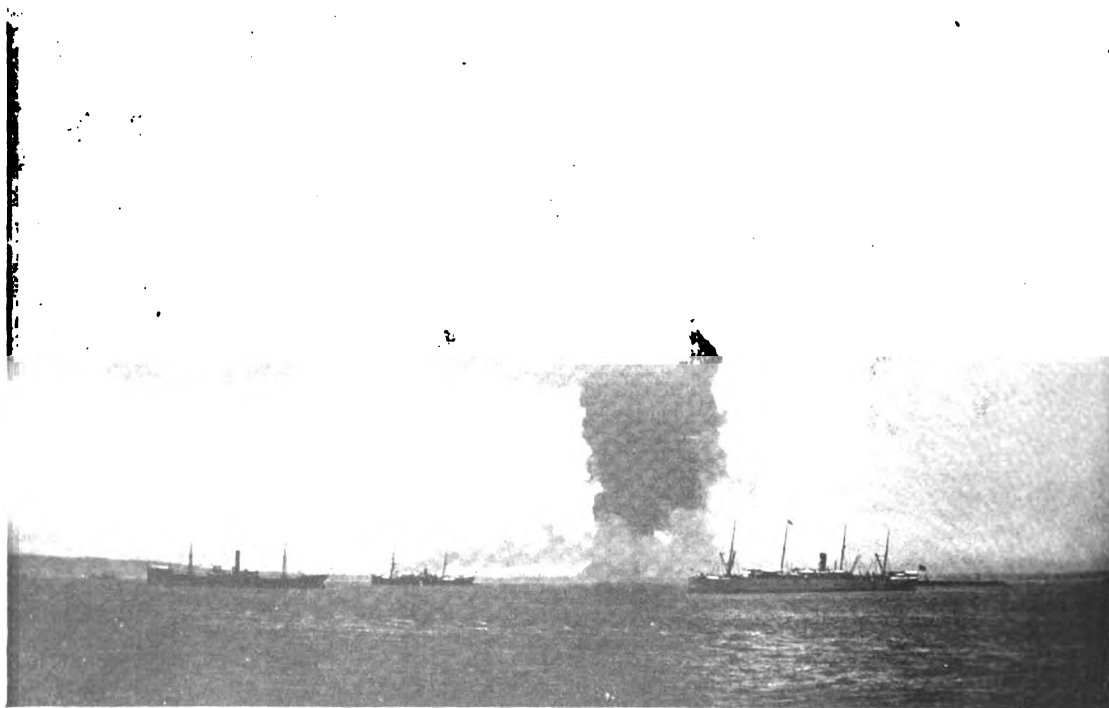
Another type of fire which the firemen do not enjoy is one in a lumber-yard. At the beginning they are very wicked fires to fight, because they are practically huge bonfires, radiating intense heat, and compelling the firemen to do their fighting from some vantage-point, usually the roof of a near-by building, or from behind some hastily-thrown-up barrier in the street. Then, when partially under control, they not only become one great "smudge," making a most uncomfortable atmosphere to work in, but they force the firemen to use methods entirely different from those employed in extinguishing an ordinary fire. This is because every pile of lumber in a lumber-yard is arranged with a little air-space between each layer of planks, for drying purposes, and the fire racing through these little air-channels, always the driest part of a lumber-pile, takes possession of these interior spaces, and while the firemen may keep dozens of streams pouring

over the outside, the fire is blazing vigorously inside. Therefore the only way that a lumber-yard fire can be extinguished completely and effectively is for the firemen to mount the still smoking pile, when the outer surface has cooled off a little, and toss each individual blazing plank or board into the street, there to be finally quenched by their comrades with a stream of water. This sometimes keeps the firemen busy for nearly a week "overhauling," as they call it, a lumber-yard fire before it is entirely out; and to get yourself thoroughly disliked in a metropolitan engine-house one has only to suggest the possibility of a lively blaze in some of the many lumber-yards along the river-front. The firemen do not like "lumber-yard fires" at all—not even the mention of one.

Oil fires—of the bursting, blazing oil-tank type—the city fireman does not have to fear to any extent, as modern protective methods have now forced nearly all the oil-refining plants to points well outside the residential limits of the majority of our large cities. But in many of the smaller cities these dangerous plants are still to be found within the zone protected by the local fire-department, and the firemen of these cities may be called upon at any moment to assist in stopping a fire of this kind. But as water has

no extinguishing effect upon burning oil, there is practically nothing that the regular firemen can do at these fires except to "wet down," or drench, the adjoining buildings with their streams, and also keep the tanks which have not exploded cooled in the same manner until the oil in these tanks has been drawn away or pumped into reserve tanks, usually located at a remote distance from the works.

New Yorkers had an opportunity of witnessing a most spectacular oil fire many years ago, when the Standard Oil Company's large refining plant at Bayonne, New Jersey, was almost entirely destroyed. Lightning started this fire one sultry July night, a flash from the sky turning a tank into a huge pillar of flame, the blaze leaping from tank to tank until by morning seventeen of these great oil-containers, some holding as much as 250,000 gallons of crude oil, were belching giant columns of fire and smoke heavenward. This was a remarkable fire in many respects and one of the most peculiar features connected with it was the immense smoke column which rose steadily from the burning oil-works for three days, and which could be seen hundreds of miles away. This enormous shaft of smoke, rivaling in its appearance some of the outbursts of Vesuvius, was measured by triangulation, and found to be



REMARKABLE SMOKE-COLUMN RISING FROM AN OIL FIRE AT BAYONNE, NEW JERSEY.



FIRE IN THE STANDARD OIL COMPANY'S PLANT AT BAYONNE, NEW JERSEY.
The tank in the center of the picture contained 250,000 gallons of crude oil

over two and one half miles high! There was very little wind at the time and the smoke rose almost directly straight upward, and then, striking a different air current at this high altitude, it made an abrupt turn and flowed southward, toward the sea. The writer had a friend who sailed for Europe two days before this fire started, and he related, afterward, that for days after the vessel had entirely lost sight of land they could still see this immense black pall of smoke covering the sky, and that occasionally drops of water fell on the deck, showing that this great mass of smoke gathered moisture, just as a thunder-cloud does. The fire raged for three days and nights, practically wiping out the entire plant, which covered several acres, and entailing a money loss to the Standard Oil Company of something like \$3,000,000. Another peculiar feature connected with this fire was the fact that although the employees of the company and the firemen of Bayonne were exposed to all manner of dangers in their endeavors to stop the fire, no one was killed, and only a few men slightly injured. It was one of the most sensational oil

fires that have ever occurred in the east, and one that will probably never be repeated, as modern oil-plants are now so safeguarded with protective devices that another fire of this magnitude is hardly possible.

River-fires make pretty fires to watch but very dangerous for the firemen to handle, because a great deal of inflammable material is stored on the piers and in the wharf-buildings along the river-front, and, once a fire is started there, no one knows where the destruction may end. And this menace is not confined merely to the wharf-buildings and their contents, but extends to the innumerable strange vessels (and their equally strange cargoes) which find dockage along the water-front of Manhattan Island, and at the great storage terminals of South Brooklyn. The firemen of New York City had an experience at a fire on the East River, a few years ago, which gave them just an inkling of what they might expect at some of these water-front fires, and also provided a most startling finale to a rather insignificant blaze.

Here they were called one night to fight a fire

in the hold of a coastal liner plying between New York and several southern ports, and loaded with cotton-seed oil, jute, hemp, and cotton in bales:



"WETTING-DOWN" TANKS AT AN OIL FIRE.

a most exquisite combination for producing a peculiarly pungent and suffocating smoke. In vain they tried to "make" the compartment in the forward part of the vessel, where the fire was raging, with their lines of hose. Again and again they were driven to the deck, where dozens of men, overcome with smoke, were carried to the dock, there to be rushed away to the hospitals in the waiting ambulances, while their places were taken by fresh relays of men who had come in response to additional alarms. Finally it was decided by the fire-chief in charge to flood the interior of the vessel, as the particularly irritating character of the smoke prevented the men from remaining between-decks long enough to locate the real heart of the fire, and soon the giant lines of hose from several fire-boats were pouring thousands of gallons of water a minute into the forward hold of the liner. But a great deal of water had already been used, and it is supposed that some of the cargo, loosened by this water, shifted to one side, for

suddenly, and without a moment's warning, the vessel careened to the starboard side, away from the dock, the hawser-line parted, and the liner almost turned turtle, throwing the firemen working on her decks into the river. Here, in the murky blackness of the night, made worse by the thick pall of smoke hanging over the water, the men had many narrow escapes from drowning, for not only were they handicapped with their heavy rubber boots and coats, which threatened to drag them down, but they had the added menace of the squirming lines of hose, now beyond their control, and which were thrashing around in the water, like enormous serpents. But again luck was with the firemen, for no one was injured and not a man was lost, though the men had an experience they will not soon forget.

Explosions, though not as common as ordinary fires, may be expected to occur in connection with a fire at any time, for a great many dangerous chemicals are stored within the city limits, particularly in what is known as the "wholesale drug

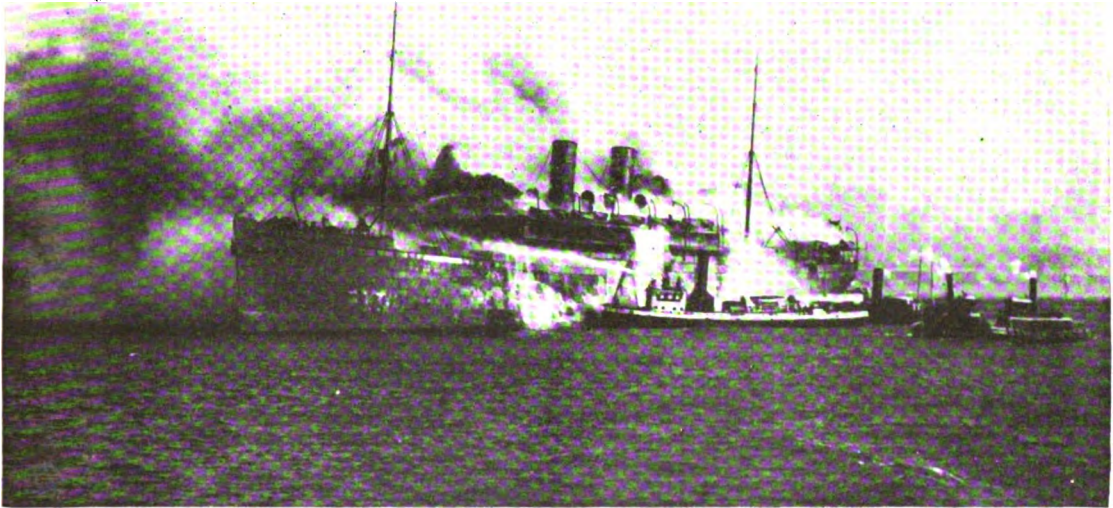


COASTAL LINER THAT TURNED TURTLE WHILE THE FIREMEN WERE WORKING ON HER DECKS.

district," and while the rigid laws covering the storage of chemicals and explosives are no doubt

observed by these drug-houses, it is a well-known fact that certain combinations could be formed with the water used in extinguishing a fire which would make a most explosive compound. The firemen know this and go about the fighting of these fires in a very cautious manner, for the celebrated "Tarrant" explosion—one of New York's most curious and destructive fires—is still fresh in the minds of many of them, and they would not care to face another terrific blast like that. This awful explosion, the exact cause

once. Bursting open a door on the second floor he found himself suddenly surrounded with a peculiar bluish flame, which burned and blistered his hands and face, and almost choked him with the suffocating vapor it threw off. Dropping on his hands and knees, he protected his face as well as he could with his rubber coat, and groping around on the floor he managed to escape through the same door he had entered, and in a blind sort of way rushed down stairs and reached the street just as an explosion shook the building



FIGHTING FIRE ON AN OCEAN LINER IN NEW YORK HARBOR.

of which will probably never be known, laid waste some twenty-odd buildings on the lower west side of Manhattan, in the neighborhood of Warren and Greenwich Streets, and partially wrecked as many more, several blocks away; but a peculiar feature connected with *this* fire was the fact that while such a number of buildings were literally blown to atoms, only seven people were killed, and but a few firemen and spectators injured. There were, however, many escapes of a hair-raising type, and the experience of one man, an officer in command of the first engine-company called to the fire, will be sufficient to give a fair idea of what some of the fire-fighters went through at this, the oddest fire the department has ever had to handle.

While his men were engaged in rescue work, assisting the women employees of the concern down the fire-escapes on the north side of the building, this officer rushed up-stairs in an endeavor to locate the seat of the fire, which seemed to be coming from everywhere and nowhere at

to its very foundations. There were two of these preliminary explosions before the final blast took place, and undoubtedly it was these two warnings which accounts for the fact that no lives were lost, for they were ominous enough to drive everybody away from the building. The fire-captain, reaching the street, continued running toward Washington Street, just west of the Tarrant Building, explaining afterward that in an intuitive way he knew something dreadful was going to happen, for fire-captains as a rule do not run away from a fire, but run to it. He had just reached the corner and turned north when the terrific blast came, turning the Tarrant seven-story building into a pile of rubbish and crushing every structure near it. And the last this fire-captain remembers was when he was lifted by this blast and literally dashed through the doorway of a commission-store on Washington Street, where he fell, unconscious. Here he was discovered, later, buried under about fifty bundles of green bananas, and after being dug out was

taken to a hospital, where it was found he was severely injured. It was several months before he was up and around, and although he has had many thrilling experiences at fires since this memorable one at the Tarrant fire, he has never been hurt, and thinks it rather strange that his only serious injury in the fire service should be caused by being buried under two or three tons of green fruit!

To these few instances of the curious features of certain kinds of fires might be added many equally interesting descriptions of the curious *causes* of fire. Among these may be briefly recorded a fire in a Jersey City factory caused by a huge spark of static electricity jumping from a rapidly moving leather transmission-belt to the elbow of a boy mixing a barrel of shellac near by—igniting this mixture and starting a fire which destroyed the factory. Another equally curious fire was caused by an icicle dropping into a barrel of unslacked lime, “slacking” the lime and

of a pet cat, a kerosene-lamp, and a milk-bottle, started a fire which completely gutted a New York City tenement. The cause of this fire was so unusual, and yet so possible, that it is worthy of detailed description.

On the ground floor of a tenement-house on the upper west side of New York, an elderly spinster kept a small notion-shop—one of those half-stores, divided by a hallway and stairs leading to the apartments above. She had a pet cat, and for the sake of economy used lamps in her living-rooms at the rear, while her store was illuminated with gas. One rather warm fall evening, she was seated beside a table in the largest of her rear living-rooms, reading by the light of a lamp, while her pet Tabby was on a near-by window listening to a loud and strident concert executed by two rival felines on a fence close to the window. A bell on the door of the store rang, telling her that a customer had entered, and the elderly shopkeeper left the room, leaving



THE FAMOUS "TARRANT EXPLOSION."

Ruins of Tarrant's seven-story building at left of picture, and in the center a fire-engine buried in the debris.

producing enough quick heat to start a fire which resulted in the destruction of a factory in North Carolina. A still more remarkable combination

the door between the apartment and the shop open. In an apartment in another house, situated on a side street and abutting on the back of

the tenement, a man whose work called him out in the wee, small hours of the morning was trying to obtain a little early evening sleep. Annoyed by the caterwaulings on the fence beside his house, he jumped from his bed in rage and seizing the first thing he could lay his hands on—which happened to be an empty milk-bottle—he threw it at the disturbers of the peace. The bottle, flying wide of its mark, struck the wall close to the window on which the lady's pet cat was sitting, and broke into a thousand pieces. Poor Miss Tabby, alarmed at the terrifying crash beside her, made one frantic leap into her home and toward the table holding the lighted lamp. Her claws just caught in the edge of the table-cover and over it came, bringing with it the lamp, which exploded. The shopkeeper hearing the crash rushed from her store only to find her rooms in flames. She made several ineffectual attempts to beat out the fire and then rushed through the door leading into the public hallway in an endeavor to warn the tenants in the apartments above, leaving this door open. This, with the open door into the shop and the open window, made a perfect draught for the fire, and it raced after her like a flash, and before she could even reach the stairs to ascend, the flames had taken possession of the hallway, and the shopkeeper was forced to seek safety for herself by a hasty retreat to the street.

When the firemen arrived upon the scene, in answer to the alarm turned in by some passer-by, they found the store and the hallway of the tenement a mass of fire, while the fire-escapes front and rear were crowded with panic-stricken tenants. These were rescued with difficulty, and before effective streams could be brought to play on the blaze it had reached the top floor, where it spread, or "mushroomed," as the firemen call it, and when

the fire was finally extinguished the upper floors had been destroyed and the rest of the building gutted.

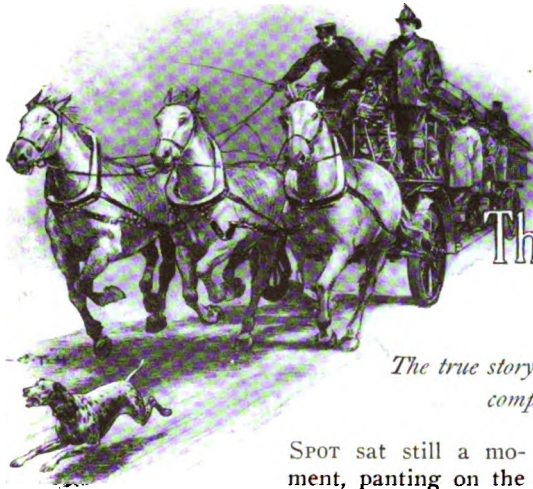
The true origin of this fire would probably have never been known if the indirect cause—the irate individual who threw the milk-bottle—had not become conscience-stricken and confessed to a fireman-friend. Although the mem-



A DANGEROUS TASK FOR THE FIRE-FIGHTERS—A FIRE IN
A WALL-PAPER FACTORY.

bers of the department are now generally familiar with the curious combination that caused this fire, it is officially recorded at headquarters as due simply to its immediate cause—"an exploding lamp."

P. S. Miss Tabby, the shopkeeper's pet cat, returned the day after the fire, somewhat singed, but otherwise O.K.



"Spot"

The Dog that Broke the Rules

By Carolyn S. Bailey

The true story of a dog, the mascot of a fire-truck company in New York City

SPOT sat still a moment, panting on the curbing opposite the great ten-story manufacturing building from which flames and smoke poured in blinding, suffocating force. The dog, mascot of Truck Company No. 35, New York City, had led the three big gray horses that drew the great truck a lively chase. It was half past ten of a dark, windy night. He was tired and winded, and his tongue lolled low from his mouth.

Spot felt, though, that his work for the evening, that of darting like a streak of black and white between the cars and late-returning motor-vehicles of the crowded streets to lead the truck, barking to warn pedestrians at street corners and to cheer his captain, was over. That the building's offices of a big garage where automobile tires were made had just caught fire in a seething, roaring mass of burning rubber did not worry the dog at all. It was n't his affair. As he caught his breath, though, Spot looked at the fire-fighting, its desperateness and its terror.

The firemen were staggering from the lower story of the building, worn out and almost overcome by the odor of the burning rubber. The machine-shop, run in connection with the garage, had caught now, and the oils added fuel to the fire. The men could not stand the heat and the smell of the place for long at a time, so they were working in shifts and for short periods. The relay that came out would fall to the sidewalk, gasping for breath, until an ambulance surgeon was able to bring them back to life, and they could again climb the ladders and take their life chance once more in the smoke-filled fourth floor.

In spite of the surgeon's efforts, though, the men were dropping on all sides. A second alarm was rung in by the chief in command of the fire, and Spot watched the strange trucks and new

men respond. He was a little scornful, perhaps, for they brought no mascot with them. But even this reënforcing of the fire-fighters did little good. The burning rubber with its suffocating fumes worked havoc with the men, and, minute by minute, the flames licked their deadly way



"'GET IN THERE, CAPTAIN!' SHOUTED THE CHIEF. 'LOCATE THAT FIRE; IT'S GOT TO BE PUT OUT!'"

farther and farther into the beams of the building and toward the upper stories.

A superhuman effort was needed, the chief

saw, or the building was doomed. He called to the captain of Truck Company No. 35, recently overcome by the smoke and now staggering up from the sidewalk, ready to obey orders.

"Get in there, Captain!" shouted the chief. "Locate that fire; it's got to be put out!"

Followed by three of his firemen, each carrying an ax, the captain sprang into the doorway and started upstairs for the fourth floor. From his post on the curbing across the street Spot watched anxiously. The captain was his master,

of a building. A dog might, in the smoke, trip up a man when to fall would mean to die. Spot had been kicked into keeping this rule a dozen times, for he seemed able to eat smoke and flames, and he always wanted to follow his master.

He could see what was happening in the burning building as the flames, now and again, lighted it. His master must be in sore danger. It was no time for keeping a law that kept him away from his captain, Spot decided, as he loped across the street and toward the flaming structure.



"THEN HE COULD SEE THE CAPTAIN LYING, FACE DOWNWARD, UPON THE FLOOR."

and Spot loved him as only a dog can love a man. He got up and ran restlessly to and fro on the edge of the gutter, and then ventured farther into the road, where the engine played a fountain of sparks above his shaggy, singed coat.

Here he pricked up ears.

Now and then Spot whined to himself and growled; arguing, he was, against the Law of the Mascots that he knew very well. But he also realized that he must obey if he was to keep his basket and bone in the truck house and his running place ahead of the three big grays. It is a law of the fire-department in New York City that no mascot shall climb above the ground floor

A fireman saw him and grabbed him by the collar. Spot snarled and showed his teeth, and the fireman loosed his grip and let him go. He passed crews of the engine companies inside, dragging lines of hose in place or leaning against the charred walls, gasping for breath; but no one saw him in the darkness. And no one heard him, for he padded his footsteps with the memories of old kicks. He was going to his master, and no one should stop him.

Spot went up one and then another, and then, at last, the hot third flight of stairs. It was black with smoke all the way. Even the flames were scarcely light enough to see by, for rub-

ber smolders instead of blazing when it burns, giving off all the time its terrible, choking odors.

The captain and his three companions had found the danger point; it was a walled-in space that had been built inside the machine-room and stored full of rubber tires and inflammable rubbish. From this trap the suffocating smoke poured. The captain realized that there was only one way to stop it. He must break an opening in one of the partitions of the inclosure so that the nozzle men could get in with their lines of hose. But he also knew that this method would create a draft which would turn the smoke in their faces. Well, it was all in the night's work. He sprang at the door of the inclosure and hurled his ax against it; then, closely followed by the other firemen, he struggled into the burning room.

A mountain of smoke, more strangling and overpowering than any that they had been obliged to face, met the four men. They fell back, caught their breath, and then tried again. But the only air they could breathe was smoke-filled, and it sickened them. Once more they were obliged to turn back for more air, and as they pushed into the furnace-like place again, groping with their axes, the captain led the way, trying to reach the opposite wall and find a place where he could chop an opening and make a counter-draft, which would serve partially to sweep the inclosure clear of smoke. To follow more easily, the fireman next to him, from second to second, touched the captain's back. He could hear him chopping. Suddenly then, as he groped, he could feel nothing. The captain was gone!

He called back to the other two men to come to the captain's rescue, but they were beginning to feel the effects of the fumes, and could do little more than grope their way back to the air. Then a small form shot by him, darting, arrow-like, through the gray barrier of the smoke. Spot was eating smoke, but what did he care? What

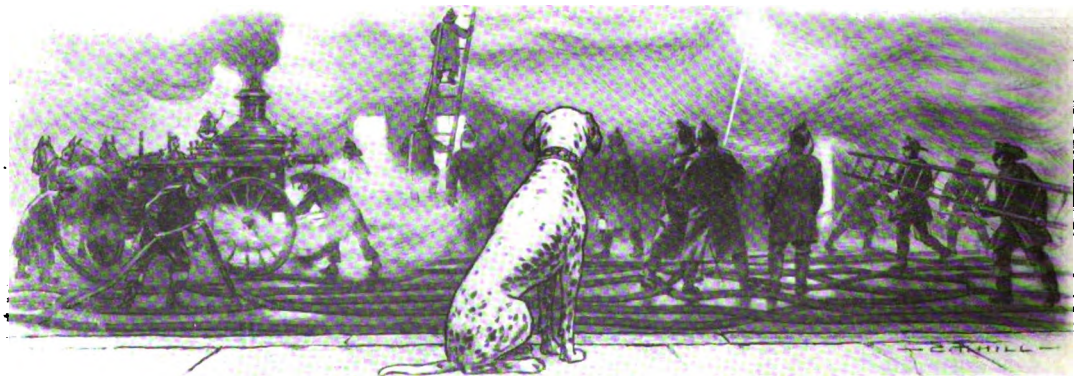
did it matter that the hairs of his roughened back were charring? He whined as he hunted, and the whines sounded like sobs. Then they turned to barks of great, unbounded joy.

Spot had found his master!

With renewed strength gained from the dog's bravery, the fireman who had been close behind the captain followed the lead of the dog's barking. As he went he hurled his ax at the opposite partition of the inclosure until he was able to break a space through which the released flames and smoke poured. Then he could see the captain lying, face downward, upon the floor, and Spot, gasping for breath but still barking, pluckily sitting on guard beside him. An instant later the three firemen were carrying the unconscious form down-stairs, while Spot bounded after them, barking hoarsely.

After the captain had been resuscitated, and the hose, turned on the danger spot, had got the fire well under way, somebody wanted to know where Spot was. He had been again whining when he struck the sidewalk, and everybody expected to see him topple over from the effects of his exposure. Instead, he was hunting among the firemen, who hurried here and there, for the man who had tried to stop him when he was on his way to find his master. Spot had decided to bite this fireman, and it took half a dozen others to keep him from carrying out his intention.

Spot is still the mascot of Truck Company No. 35. It was thought best by the entire company not to reduce him in rank because of his offense. He has been to many fires since, leading the truck and looking back occasionally to bark his encouragement. Not once since has he broken the law; but as he sits on an opposite street corner or curbing watching the fire-fighting, there is a certain cock of his ears and twist of his eyes that say that Spot will be a lawbreaker again if his master ever needs him.





BROTHER AND SISTER. PAINTED BY LYDIA FIELD EMMET.

L Laughing Song

*By William Blake
("Songs of Innocence," 1789)*

When the green woods laugh with the voice of joy,
And the dimpling stream runs laughing by;
When the air does laugh with our merry wit,
And the green hill laughs with the noise of it;

When the meadows laugh with lively green,
And the grasshopper laughs in the merry scene;
When Mary and Susan and Emily
With their sweet round mouths sing "Ha ha he!"

When the painted birds laugh in the shade,
Where our table with cherries and nuts is spread:
Come live, and be merry, and join with me,
To sing the sweet chorus of "Ha ha he!"





"WHEN MARY AND SUSAN AND EMILY
WITH THEIR SWEET ROUND MOUTHS SING 'HA HA HE!'"



Three-and a Fourth

Being the Eighth of the

Wonder-Box Stories

by
Will Bradley

IN days of old, when there were many brave knights who rode in tournaments and jousted for the favors of fair ladies, it was the custom for those who tired of such sport to ride out into the deep forests and through far lands over sea seeking new and strange adventures. Always when such a knight returned again into his own country and came within the walls of the king's castle, there quickly gathered about him the king and queen and all the lords and ladies of the court. Then the knight would relate the many strange happenings that had befallen him on his quest. That, indeed, was a fine custom, for in those days there were neither magazines nor books, and stories were known only by the spoken word and in lays sung by the minstrels.

Yes, indeed, that was a fine custom! But in the good town of Noodleburg there were no knights to ride in tournaments, and none to travel in far lands seeking adventure; there were only the merchants, the farmers, and such other peaceful stay-at-homes as are always to be found in every small town. All of this is just as true as that Granny Jones's black tabby has six white kittens; and a pity it is, too, for now the Mayor of Noodleburg steps out into the town square and vows and declares that if this was the custom of old, it should be the custom to-day, and that he would like to find a few stout lads to ride out upon adventure and bring back such thrilling tales as would be well worth the telling.

Well, in the end they searched here, there, and

yonder, even to the uttermost of the four corners of the city, and this is what they found: one little policeman, one fat innkeeper, and one tall soldier. These three they found, and these three said they were ready to fare forth upon the adventure.

Off the three started, as brave as ever went knights in days of old, and pretty soon came to the cross-roads outside the town.

One road led to the east, and on that road went the little policeman.

One road led to the west, and on that road went the fat innkeeper.

One road led to the north, and on that road went the tall soldier.

On and on they traveled—one on the road to

came of them I do not know, for never again were they seen in Noodleburg.

Then one day there came riding up to the Mayor a fine brave lad, astride a little donkey. His name was Boots.

Would the Mayor like to have him ride out upon an adventure?

"Why yes." The Mayor was tired of waiting for the return of the three; he would now be glad to have a fourth.

So the lad, astride his little donkey, rode out upon the highway; and when he came to the cross-roads, he looked to the east, and said, "No, I won't go that road, for that is the way the little policeman went." Then he looked to the west and to the north, and to these also he said, "No";



ONE LITTLE POLICEMAN, ONE FAT INNKEEPER, AND ONE TALL SOLDIER
FARE FORTH UPON THE ADVENTURE.

the rising sun; one on the road to the setting sun; and one into the far country of ice and snow where the polar bears live. And whatever be-

for those were the roads taken by the innkeeper and the soldier.

"No," said the brave lad, "I will not ride to the

east or the west or the north; I will ride only to the south." So he turned his donkey around and rode off upon the south road, which led no other way than straight back into Noodleburg. And it was at home in Noodleburg the brave lad found his adventure; which, as Neighbor Brown tells me, is as oft might happen with many another lad if he but had one tenth part of the wisdom of Solomon.

"One tenth part of the wisdom of Solomon," said I; "why, that is more than is now in all the world, even if it were put together in one big pile!"

Don't you believe it? Well, listen:

WHEN the little lad returned to within sight of the town gates, he said:

"If I ride straight into Noodleburg, folks will crowd about me and say, 'Here is Boots back again from his travels, with a tale to tell of his adventure; let us send word to the Mayor.' Which would be sad indeed, for not so much of an adventure have I had as might make a tale of three words, or even two."

Then he got down from off his donkey and let



"NEVER BEFORE HAD HE SEEN SO MUCH WEALTH."

the beast crop the long sweet grass by the roadside and found a comfortable seat in the shade of an oak-tree. The sun was about at noon, so he felt in the pocket of his coat and found a bit of cold meat-pie and an apple, and he made of these as fine a meal as ever a hungry lad might tuck beneath his belt.

"It is yet so early in the afternoon," thought Boots, "and the sun is so hot that I will rest awhile before going farther on my travels; and no better place can I find for that rest than in the shade of this big oak."

So he stretched full length upon the ground,

with his cheek in the grass, and would soon have been fast asleep but for this strange happening: hardly did his ear touch the ground when he heard a tapping sound, such as might have been made by a beetle or some other big bug trying to escape, and a little voice, more tiny than that of the smallest baby, said:

"Let me out! Let me out!"

Boots was on his feet in a jiffy; yet, look about as he would, nowhere could he see hide or hair of any living thing save only his donkey contentedly cropping at the wayside.

"Let me out! Let me out!"

And now the voice was so faint it could hardly be heard above the whispering of the breeze as it ran in gentle waves across the meadow to the wings of the great red mill, or the singing of the brook that tumbled lazily over the green and silver pebbles on its way to the water-wheel down yonder.

"Oh, ho!" said Boots, "I think you must be under the roots of this tree; I will just dig about a bit and see. So he dug and dug, until pretty soon he came to a flat stone; and on the stone there were carved such strange characters as Boots had never seen in any of his school-books, or even at the big library up in the village. This is no wonder, either, for the characters were written by King Solomon the Wise, and signed with his great seal. What they said, word for word, I do not know, but what they really meant was neither more nor less than just this: he who found that stone, if he were wise would straightway cover it up again and look no farther; and especially, he should never lift it up and uncover the brass bottle to be found underneath; and under no condition should he open the brass bottle.

Yes, that was the meaning of those strange characters written on the stone; but Boots did not know that; and if he had known, I half suspect he would have looked anyway, which, for that matter, is no more than you or I or Neighbor Brown would have done had we been in Boots's place.

"Let me out! Let me out!"

And now the voice was harsh and querulous and well nigh as big as Boots's own. Then up came the flat stone, and up came the brass bottle, and nearly was the bottle opened when Boots thought:

"Maybe there is something to be gained from not burning my fingers by being in too much of a hurry." So he said: "Wait a bit! Wait a bit! Perhaps I will let you out, and then again, perhaps I won't. But first of all we must make a bit of a bargain."

Well, there were few words lost on that pro-

posal, and in a moment off came the top of the brass bottle, and out upon the ground jumped a Little Mannikin dressed all in scarlet.

"My! Oh, my!" said the Mannikin, "but I am stiff and sore, and every bone in my body



trudging at his heels was the Little Mannikin; for that he should go, too, was part of their bargain.

Now you must be told that on this very morning the Mayor had drawn a hundred gold dollars from the bank and had placed them in a bag upon the shelf in the pantry. Then straightway he forgot where they were; and when he went to look and could not find them, such a hue and cry he set up as brought the goodwife and servants into the room to learn what it was all about.

"I have been robbed of a hundred round gold dollars!" cried the Mayor, excitedly. "Go hunt for the thief!"

So it happened that when Boots reached the main street of Noodleburg, folks were all bustling about, and crying:

"Catch the thief! Catch the thief!"

Then, as you will quickly guess, they soon



"THERE WAS THE MANNIKIN ASTRIDE A BLACK CAT."

knows a different ache. For three thousand years I have been imprisoned in that brass bottle with no room to move about, or stretch my legs, or find any comfort whatsoever."

"Well, now at last you are free," said Boots, "and it is time to pay the score."

Yes, the Mannikin would do that; for it was good to be free again, to breathe the fresh air, and to feel the warm sun upon one's back after so long a time in the cold earth. See! Boots was just to take a green oak-leaf, and do so and so, and there would be as fine a suit of clothes as he could ask for; and then if he would dig a bit under the oak-tree, he would find a chest of gold and silver coins, enough to make him rich all the days of his life.

That was the bargain Boots had made with the Mannikin, and it was n't long before he was wearing his new clothes and kneeling before a chest of gold and silver money. Then his eyes were near popping out of his head, for never before had he seen so much wealth.

With his pockets stuffed full of gold, Boots was soon on the road into Noodleburg, and

spied Boots. And no sooner spied him than they saw his pockets bulging with gold dollars.

"Here is the thief!" they all shouted. "Boots is the thief!"

Then straightway they led him before the Mayor, and in the end the Mayor had Boots's gold dollars, and Boots was cooling his heels in jail. And all of this had happened in spite of the fact that Boots told the Mayor about the Little Mannikin and the chest under the oak-tree.

Some folks who stood by said it was a pity to see the little lad marched off to jail, and one of these, a tall lanky fellow, even went so far as to say he believed Boots was telling no more than the very truth; and as for himself, he was going to follow the Mannikin and ask a question or two of his own.

Then off he stepped at a lively pace to the jail, and there was the Mannikin astride a black cat, riding up and down in front of the building, and all the children laughing and thinking it the greatest sport ever seen.

Well, it did n't take much coaxing until the

Lanky One had the Mannikin off on a side street. Then, was it true that he could do so and so and so and so? Yes, the Mannikin could do all that and more too. All right; if that were so, the Mannikin could just fetch a fine meal, for the Lanky One was hungry. Nothing could be easier. And there before them was a smoking capon, juicy and tender, and as sweet a morsel as ever came from Dame Gretchen's oven.

And just such another capon as this Dame Gretchen was at that very moment placing upon the table for her goodman's dinner. Then she



"A SIMPLE LAD TRYING TO CATCH FISH IN A PAIL."

went to the cellar to draw a mug of cider, and, in that nick of time, in at the door came the black cat; and when it went out again, in its mouth was Dame Gretchen's capon.

My, such a hue and cry as there was then in that house!

"A thief has stolen my capon! Catch the thief!"

Those were the words that came flying out of the window. And, of course, every one thought the Lanky Lad was the thief: so his hands were bound behind his back and off he was marched to jail.

Just as Boots had told about the Mannikin, so also the lad told, but no more came of it than just that the Mayor thought he would find out a thing or two for himself. Then off he stepped through the town, and out of the town gates, and

along the highway until he came to the oak-tree, where, when he had dug about a bit, he found the chest, just as Boots had buried it.

Meanwhile, affairs were moving at a lively pace in Noodleburg, for the Chief Jailer had vowed and declared how the two thieves would have to be beheaded. Yes, he had sent for the Lord High Executioner to come with his big sword, and already that dread official was on his way. No wonder there was excitement in the town, and no wonder Boots wished he had never dug up that flat stone and opened the brass bottle! Of course, Boots and the Lanky Lad did n't know that already the Mayor had learned the truth; and anyway, it was a long journey from the oak-tree back to the town, and the Mayor was fat and could n't walk very fast, so like as not he would n't arrive in time not to be too late.

When the Mayor reached the edge of town, whom should he meet coming out of the gate but the Little Mannikin. "Oh, ho!" said he. "Is it true that you can do all these wonderful things that have been told of you?" Yes, it was true the Mannikin could do that and much more, and now would the Mayor like to see some of his tricks? Certainly, the Mayor would like to see what the Little Mannikin could do. "Look," said he, "over yonder is a simple lad trying to catch fish in a pail. Have you power to make him catch a sea-serpent?"

My, how the Little Mannikin laughed! Could he make the simpleton catch a sea-serpent? Just watch and see!

So they went over to where the simpleton was trying to catch fish in a pail. But I, for one, wish the Mayor had gone straight to the jail and released Boots and the Lanky Lad, for now the Lord High Executioner had his sharpened sword on his shoulder and was stepping along lively toward the jail. If Boots and the Lanky Lad were looking out of the window and saw this sight, they must have been terribly frightened.

However, it did n't take the Little Mannikin long to do his trick; and it did n't take the Mayor long to get back into town. No wonder was that, either; for such a terrible sea-serpent as came out of the simpleton's pail was enough to frighten any one and make him run fast, even though he were twice as fat as the Mayor, which would be very fat indeed.

"Cut their heads off!" yelled the Chief Jailer.

"That I will," answered the Lord High Executioner, and he raised his sword for the blow.

"Stop!" shouted the Mayor, almost out of breath from his long, fast run. "They are both innocent; give them their freedom."

So Boots and the Lanky Lad were allowed to

depart. As for the Mayor, he found his gold dollars on the shelf in the pantry, just where he had left them, but the goodwife Gretchen never again saw her fat capon. Whatever became of the Lanky Lad I do not know, but at least I am glad he was not beheaded.

When Boots came again to the edge of town, there was the Mannikin sitting on a rock and grinning contentedly. And now the Mannikin would go along with Boots as they had bargained in the beginning. It was easy to see that Boots little liked that idea, but a bargain was a bargain and he did n't say no. So the two trudged along the highway—first Boots, and at his heels the Mannikin; and not one word did either say to the other until they came once more to the big oak.

By this time it was evening, and the oak had its top in the last slant rays of the setting sun, while at its base the shadows were so cool and so inviting that Boots said he would lie down and take a bit of a nap, for certainly he was tired from all the happenings of that day in Noodleburg.

Yes, Boots was for taking a nap; but first of all, he would like to know if it were true, as folks said, that the Mannikin had conjured a fat capon for the Lanky Lad and had frightened the Mayor with a great sea-serpent.

Oh, the Mannikin had done all this and more too. Was there anything else Boots would like to know?

Why, yes; Boots had been thinking and wondering how the Mannikin ever could have squeezed his body into that small brass bottle, which was no more than six inches high; and now, if the Mannikin would be so kind, Boots would like to see him do that trick again.

Such an easy trick as that the Mannikin could do in a jiffy; it was too bad Boots did n't ask something more difficult. Look! the Mannikin would jump into the bottle and out again, and

perhaps by that time Boots would think of something else to have him do.

Well, quick as a wink into the bottle jumped the Mannikin, and quick as a wink Boots clapped on the cover. My, what a fuss the little fellow made then! He kicked, and scratched, and shouted, and made such a time that there was nothing to be done only for Boots to bury him under the flat stone on which was the seal of Solomon.

Then Boots stretched out on the soft grass and went to sleep and did not wake up again until the next morning. After he had rubbed the sleep from out his eyes he thought of the chest and the gold dollars. "I will put a few of the coins in my pocket," he said; "they will come handy over in Noodleburg."

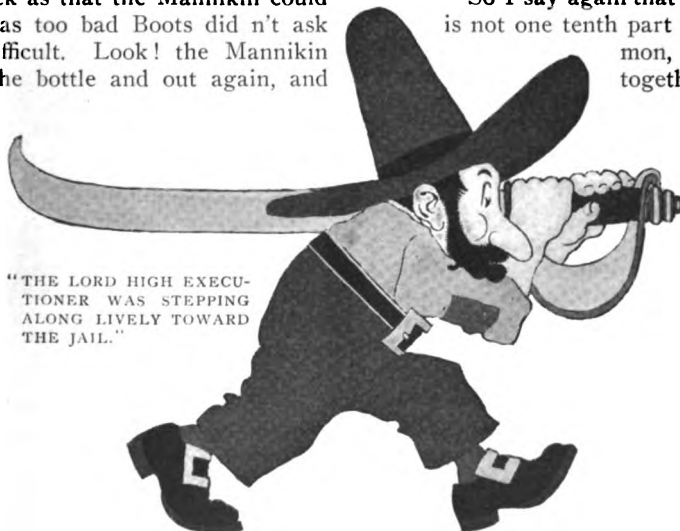
But for all Boots searched here, there, and yonder, no sign could he see of the chest. Then he said, "Oh, well, if I cannot find the chest, I will just free the Mannikin until he gets me some more gold dollars."

Certainly, that was the thing to do; for it would be foolish to go into Noodleburg with no gold jingling in one's pocket when gold was to be had merely for the asking.

Well, just as happened with the chest now happened with the bottle; up and down and all around Boots searched, but never again did he see the Little Mannikin.

A good thing this was, too; for no telling what might happen if the little fellow were wandering around free in this big world. Yet if ever I went to sleep beneath that oak-tree and heard a tapping such as Boots heard, I would dig about a bit; and if I found the stone I would lift it up; and open the brass bottle, just as Boots did.

So I say again that in all the world there is not one tenth part the wisdom of Solomon, even if it were put together in one big pile.



LAWN-TENNIS FOR BOYS

BY J. PARMLY PARET

Author of "Methods and Players of Modern Lawn-Tennis"

With photographs illustrating good form in tennis, specially posed for ST. NICHOLAS by Harold A. Throckmorton, National Interscholastic Champion

CHAPTER III

THE BACKHAND STROKE

THE first real stumbling-block of the average school-boy who takes up lawn-tennis is, generally, the backhand stroke. He will not find it hard to understand the first principles, already explained earlier in this series, nor the forehand strokes; but when it comes to backhand play, an entirely new idea comes up. It is generally hard to get used to the different positions required.

I had this same difficulty with my young pupil, Jack, who went sailing along smoothly until he reached this point. I did not let him try the backhand stroke, however, for some time after he had learned the simpler plays, and I made him practise for a week against the side of a friendly house, using only the forehand stroke, before I explained the new problem.

"Now, Jack," I said, the day we first took up this stroke, "you must get a clear idea first just what the difference is between forehand and backhand play. It is easy to talk about these shots and not know what they mean.

"A backhand stroke is one that is made when the ball is on the opposite side of the player from the striking-arm. For the usual right-handed boy, it is a ball that comes on his left side, and the body must be turned around entirely, facing in the opposite direction to the forehand stroke, when this play is to be made. With the right foot forward, and the right shoulder toward the net, the feet should be almost in line with the flight of the ball, the left far behind the right.

"This brings the shoulder of the striking-arm around where it will have the most freedom for the swing, but a little ahead of the ball when it is hit."

"But why can't the same position be used for both strokes? I should think it would take too much time to shift your position every time the ball comes on the opposite side of the body," he suggested.

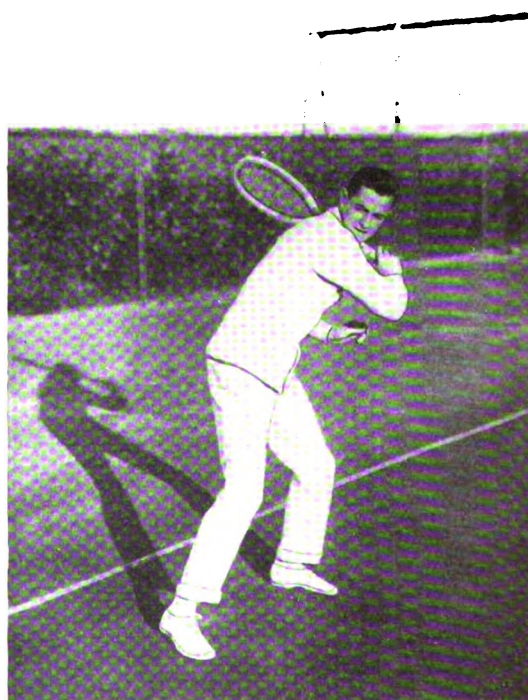
"But you don't make a full shift each time. After every stroke you play, you should return to the waiting position, which brings the racket in front of the body, balanced with the fork, or 'splice,' resting in the idle left hand, and the

body turned around to face the net again. With the feet spread out diagonally, you will be ready for any stroke, no matter which way the ball may come, and it is very easy to step into the correct striking position.

"A splendid rule to keep always in mind is—never to wait in the striking position and never to strike in the waiting position."

"But why not wait in the position you held when the last stroke was made? Are n't you doing double work when you shift to the waiting position and then step back again for the same stroke you had just made?"

"Sometimes, perhaps," I had to admit, recog-



BEGINNING THE BACKHAND STROKE.

nizing the obstacle over which so many beginners stumble: "but when you learn to play a little better, if you don't make this extra effort, the other boy you are playing against will soon get you in trouble, and it will cost you many valuable

points. A quick player soon takes advantage of his adversary if he finds him waiting in the wrong position, and promptly places the ball on the opposite side of the court, and so wins. There is not time enough to make the shift, and the player strikes with the wrong foot forward and from the wrong position, so that the point is lost nine times out of ten."

We practised awhile, and I watched Jack testing out this new idea. At first, like all beginners, he waited to watch the result of each stroke before he got back into the correct waiting position, so I promptly taught him a much-needed object-lesson by placing the ball suddenly a few times on the opposite side, with always the same result. He was surprised by the attack, and each time he failed to make a good return from this stroke. At last he saw the point of what I had been trying to drive into him.

"Well, I guess you're right," he gasped, badly out of breath, after a fifth "ace" on his backhand side, which came as a result of his waiting after a forehand stroke in the same position, expecting to play the next ball without a shift.

"You are never safe in tennis," I explained, "unless you are in position to return anything, no matter where the ball may come. Even though you make a hundred forehand strokes in succession, the first time you fail to come back to the waiting position to anticipate any other, that is the signal for a wise opponent to give you on the other side a ball that should win."

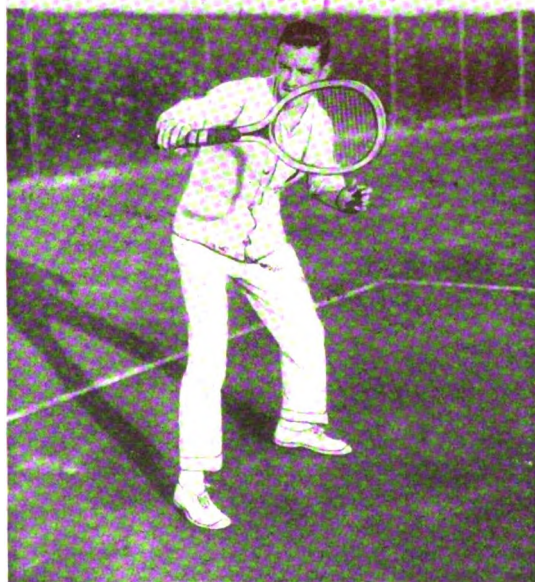
In backhand play, it is hopeless to try to make the stroke with the feet in the wrong position, for the arm must then cross the body, and the playing shoulder, that is the pivot of the blow, will be on the opposite side from the ball. For full freedom, it is necessary to get the shoulder way forward and the body so turned that, as the racket goes back behind the head and left shoulder, the arm will have freedom for a full stroke.

As the sweep of the arm brings the racket forward to hit the ball, the weight should be swung ahead to increase the power of the blow. When the racket is way back, the weight should be entirely over the left foot; when the ball is struck, it is about evenly divided between the two legs, while at the end of the stroke it should swing forward until entirely over the right foot.

"This swinging of the body with the stroke lengthens the swing of the racket and adds the weight of the body to the power of the blow," I explained to my young pupil. "It is not only needed to strike a full stroke at the ball, but it also helps to keep the racket in the right path and so guide the ball in the direction intended. This swing is continued long after the ball has left the

racket, and should follow after the ball as much as possible in the same direction that it is traveling. The more directly the line of this swing follows the ball's flight, the better will be the control of the player over the ball."

Again Jack interrupted. "How can any mo-



MIDDLE OF THE BACKHAND STROKE.

tion of the racket after the ball has left it affect the flight?" he wisely questioned.

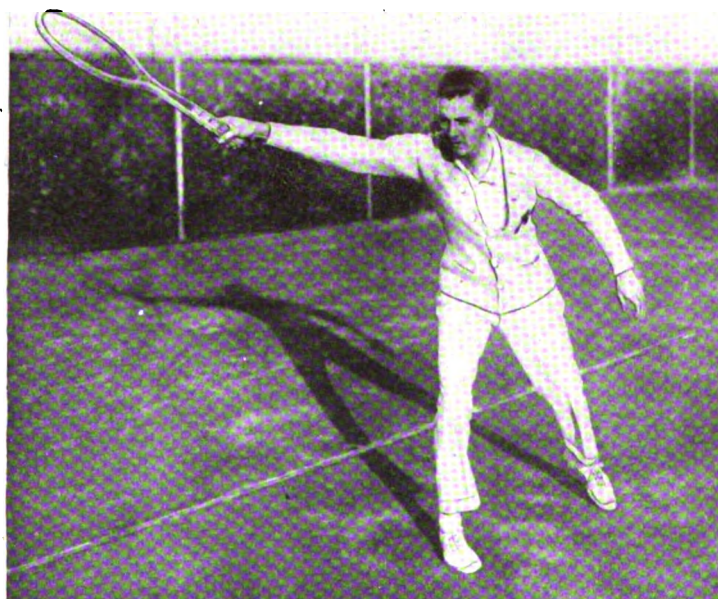
Strictly speaking, he was right, too. It cannot, but the swing after the ball has left does affect the swing before, and that affects the flight of the ball. If the player were to stop the racket immediately after he had hit the ball, or turn it off sharply at another angle, it would be practically impossible to prevent this from affecting the earlier swing, and so the direction of the ball. To get the full value of the stroke, then, and make the all-important "follow-through" effective, keep your racket in line with the ball's flight and make the swing follow it closely and as long after as possible.

At the end of the swing, of course, the racket cannot be checked suddenly; at the limit of the reach, it should be allowed to swing off to the side, gradually stopping its forward motion.

Jack had a tendency at first to bend his elbow somewhat in making the backhand stroke, and I had a good deal of trouble in making him

straighten it out, to make the blow in the same "plane of force," as it is called by the experts.

"As far as possible," I explained, "keep your arm and racket horizontal, and do not bend your elbow. The tennis-stroke is really made with a jointed rod, hinged at the shoulder, at the elbow, and at the wrist. Power transmitted through a crooked rod is never so effective as through a straight one. If there is a sharp bend at the elbow or wrist, it will weaken the blow; so try to keep the arm well extended and as nearly in line with the racket handle as possible."



END OF THE BACKHAND STROKE.

The new ideas were soon in practice, and I saw my young pupil improve rapidly as he followed the rules laid down. He seemed a bit uncertain about his backhand grip, however, for he had heard there were several ways possible of holding the racket. There was danger of his failing entirely, as there is with so many boys, because a confusion of ideas might prevent his forming any fixed habits of play, so I repeated often to him these golden rules for backhand strokes:

Always use your thumb up the handle to support the racket; swing around with your playing shoulder toward the net and your feet in line with the flight of the ball; swing the racket back well over the opposite shoulder and follow through with the swing as far as the arm can reach; let the weight of the body swing forward with the racket, starting over the rear foot and ending

over the forward foot; and, above all, always return after each stroke to the waiting position, with racket balanced in front of the body, so as to be prepared for the next stroke, no matter where the ball may come.

CHAPTER IV

THE SERVICE AND VOLLEYING

THE service and volleying in lawn-tennis are a distinct department of the game, different from all the rest, and they can be safely classed together because the strokes are much the same. The school-boy who has learned his first principles of play and his ground-strokes, as already explained in the previous chapters of this series, needs only the volley-stroke and service to complete an elementary knowledge of the game.

Overhead volleys and service are different from any of the ground-strokes because the motion is not in any way the same. For ground-strokes the swing is forward and upward to lift the ball over the net; but for serving and volleying, the sweep of the racket is forward and downward, as the ball must be hit high up in the air and driven down, not lifted up.

My young pupil, Jack, found it difficult at first to get this distinction that I tried so hard to make plain, and I thought of a happy comparison that made the difference clear.

"You have seen a wood-chopper at work, haven't you, Jack? You have seen him chop down a tree, and probably you have noticed the swing of his ax. Every blow is made with the same long swing, the ax starting from behind his back, well down below the shoulders. The ax starts upward and outward at the end of his arm's reach, and finally forward and then downward, following a sweep of nearly a full circle.

"The centrifugal force of this swing increases the speed of the ax as it flies through the air, until, when it strikes into the trunk of the tree, it has accumulated great power. Without this, the wood-cutter would take a week to cut down a fair-sized tree. The power of the muscles alone would hardly make the ax cut into the wood at all.

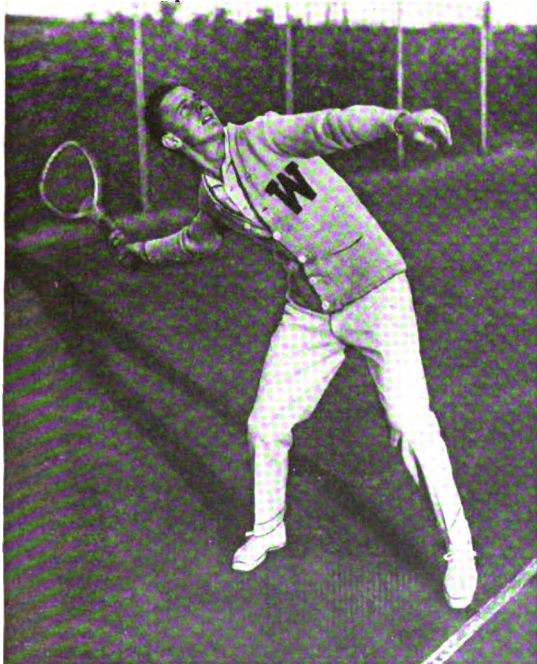
"Now, the overhead tennis-stroke is much the

same as this, for the swing is similar and the same centrifugal force is needed to give the racket force enough to drive a fast ball. I do not know of a better model for the service than the blow of a wood-chopper's ax."

"But the ax stops short in the wood," suggested Jack, "and the racket travels on after hitting the ball. The finish of the swing must be different, I should think."

"Exactly so," I was glad to explain, for this led up directly to one of the most important points of overhead play. "In serving and in smashing, the racket must follow through as in the ground-strokes; it must follow after the ball as far as possible before being checked. But the swing is made in the same manner that the woodsman uses with his powerful ax-blow."

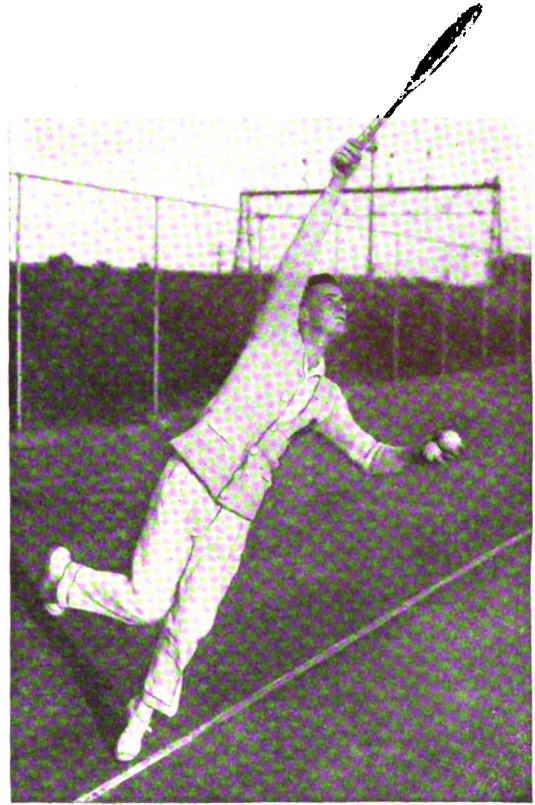
"The racket should start from well behind the back, hanging downward, so that the upward and forward drag will give it good speed when it meets the ball. And the player must reach high up in the air also to meet the ball. It should be hit at the highest point it is possible to reach, at the extreme end of the arm's stretch, and the



BEGINNING THE SERVICE.

player should even rise up on his toes to increase the reach.

"The racket should be beveled a trifle, that is, turned so as to strike a glancing blow that will



COMPLETING THE SERVICE.

make the ball spin around, and it should be kept in contact as long as possible with the ball to help guide it on the proper course, as well as to make it spin in its flight.

"The ball should be met with a chopping, side-wiping blow, and the racket drawn downward quickly while still in contact with it. The 'drag' of the racket's strings in making the service helps to bring the ball down to earth quickly after crossing the net, so that it will not fly out of court."

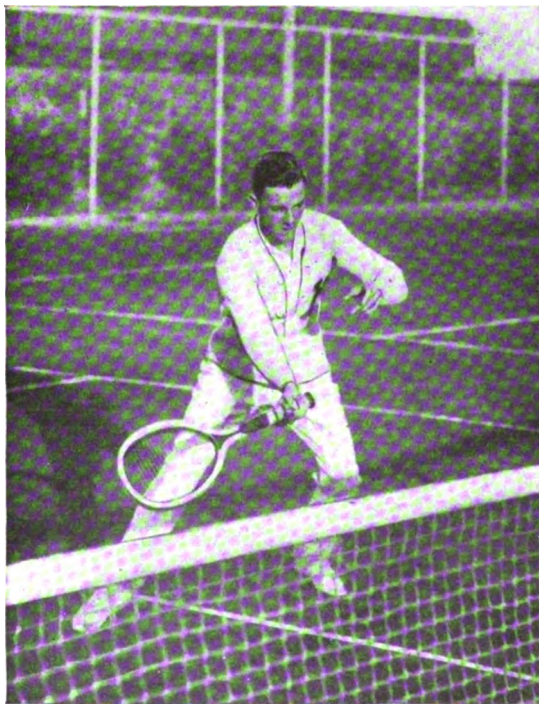
We practised awhile, Jack and I, and he served for some time, putting into practice the stroke I had been showing him. Most of the balls he served went into the net at first. I found that he was striking the ball from too far out in front of where he stood, and this fault always brings the ball down too fast. I showed him where the error was and he tried again, and then he struck at the ball too far back over his shoulder, with the opposite result, for most of his services then went out of court instead of into the net.

After an hour's practice, he finally got the

stroke right, and his racket met the ball almost directly over his shoulder each time, so that most of the balls went into the right court. But, like all boys, his impetuous temperament made him want to rush ahead too fast, and he began to run before he had fully learned to walk.

"Don't try to hit so fast until you are more certain of making the stroke," I warned the lad: but he was full of enthusiasm and had a burning desire to imitate McLoughlin with every service. As a result, he not only made many faults, but he was constantly making double faults as well, and I had to give him the same advice I find is needed by so many other young players, a warning that too few can be made to follow.

"A double fault is the worst sign of weakness a young player can have," I explained. "Most beginners scorn to serve a slow ball, as they think it childish, but the experienced player has far more respect for the boy who seldom makes a double fault, even saving himself with the slowest kind of a second service to be certain of not missing it, than he has for the show-off slam-

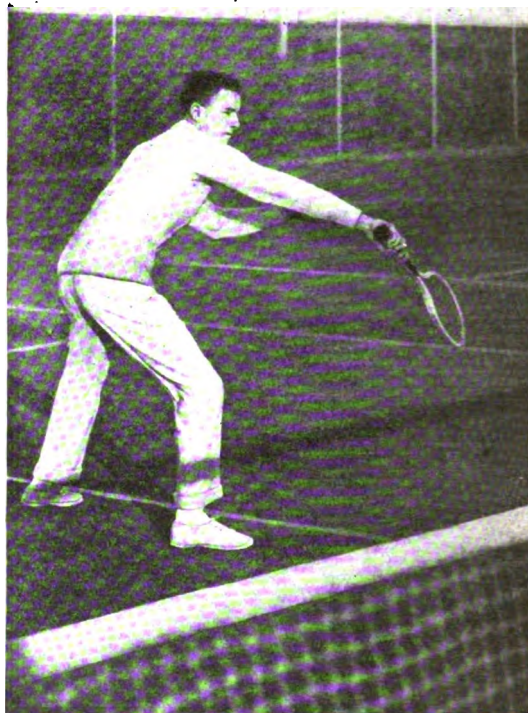


FOREHAND VOLLEY AT THE NET.

banger who hits every service hard and misses most of them.

"Another thing, Jack," I lectured, "remember that both feet must be outside of the court when you serve." I had seen him repeatedly step on the

line while serving, and he was contracting one of the worst habits of the game. "The rules are



BACKHAND VOLLEY AT THE NET.

very positive about this point, and a ball served while one foot is on the line or inside the court is as much a fault as though the ball went into the net."

This is a point that every beginner should study carefully before bad habits are formed.

Overhead volleying is very much like serving, as I have already explained, the chief difference being that the player must go to the ball and cannot select his own place and time to make the stroke. When the ball falls near the net, even a beginner is safe in making a regular smash, hitting the ball with great force; but if the opponent's lob is far back in the court, the chances for success are far smaller, and it is dangerous to risk such a shot.

To smash is to volley overhead with all the power you have, expecting that speed alone will kill the ball and end the play without further opposition. On dropping balls that can be played while close up, this smash is not difficult, but much the same stroke can be played from farther back in the court, by moderating the power when necessary, and directing the ball to one side

of the court, so as to win the play by placing rather than speed.

The same backward swing is necessary for smashing as for serving, but the swing should be cut much shorter for other volleys, as less momentum is needed in the racket for these strokes. The ball is met in the same way with the face of the racket beveled slightly outward, and the stroke works best if chopped slightly with a twisting motion. For ordinary volleys, that are not fast enough to be called smashes, the ball can be played slightly farther in front than for smashes.

After practising this stroke for a while, Jack reached the conclusion that so many other school-boys come to.

"I 'd like to smash every ball," said he, and promptly overdid this stroke as he had the service, until I stopped his enthusiasm.

"Remember, Jack," I warned, "smashing looks fine to the gallery when it succeeds, but the winning player in a match is seldom the boy who goes rushing up to the net at every opportunity and smashes every ball he can possibly reach. These tactics bring too many errors, and the

tournament winner is most often the careful, heady player, who takes less risks, sacrifices some of his gallery tactics to sound judgment, and keeps the ball going back over the net until his dashing adversary knocks it out of court."

As a final review, I went over the most important points that should be remembered in serving and volleying. These should be studied by every school-boy when he learns the game:

Always serve and volley overhead with a free sweep of the shoulder; start the racket well behind the back and swing it fast enough to gather good momentum before it hits the ball; strike as high as you can possibly reach the ball and follow through with the racket after the ball as far as possible.

In serving, you must remember to keep both feet behind the base-line until the ball has left the racket, and make the second service slow enough to be sure not to score a double fault; for overhead volleying, use the same stroke as for serving, and keep well under the ball; do not risk a smash unless close up to the net, and when you do smash, hit the ball fast enough to "kill it dead," as the Irishman put it.

THE END.



THE LAST DAY AT THE SEASHORE.



All the Way to Marly Fair

By Clara Platt Meadowcroft

IN and out and roundabout the winding road to Marly Fair,
Up and down the court was seeking, riding here and riding there.
"Since it 's far too far for walking, and we do not know the way,
Little Prince Beaumain," said Griflet, "here at home we two
must stay!"

Down we sat each side the gateway, and a doleful pair were we,
When a reedy pipe came calling round the road-bend cheerily;
Then gay voices all together, and—it seemed some merry joke,—
Came a gaily painted wagon filled with gaily painted folk.

On a snow-white mule a zany mocked us loudly as he came:
"Greeting, Knights of Rueful Faces! Sooth, is smiling held in shame,
That ye sit in dismal doldrums, waiting for the sky to fall?
But here, I bid you! lest it tumble and you cannot laugh at all!

"Who am I? Pray don't you know me by my broadly painted grin,
By my powder and my patches? Truly, I am Harlequin!
Pierrot, Columbine, ride yonder;—but we have no time to spare.
We 're the famous Marly Mummers, and we 're off to Marly Fair!

"Will you join our merry party?" "Sirs, right gladly, an we may."
"Can you sing?" Then Griflet whistled as he 'd heard the piper play.
"I can play my flute,—yea truly, and no man can better me,—
But here 's one can play the flute without a flute at all!" said he.

Columbine among her spangles made us room at either hand;
Harlequin, his mule bestriding, led along our motley band.
Gaily Griflet sang and whistled.—"Thrush and nightingale I 've heard,
But here 's one sings all the bird-songs even better than a bird!"

Up and down the road to Marly Fair, and round and roundabout,
Till we met the court still seeking, for they could not find it out!
How the courtiers laughed together when they saw us: "Ho! make way
For the little Prince of Mummers, who shall be our guide to-day!"

So with all the trumpets blowing, King and court fell in behind,
And we led the way to Marly that had been so hard to find;
But the gay and splendid pageant made the village laugh and stare:
"Ho! make way for all the Mummers that have come to Marly Fair!"



"HARLEQUIN, HIS MULE BESTRIDING, LED ALONG OUR MOTLEY BAND."

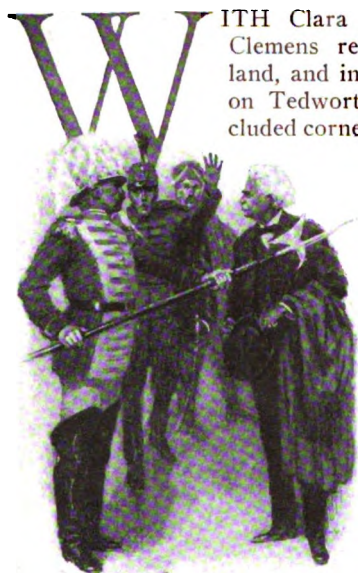
THE BOYS' LIFE OF MARK TWAIN

BY ALBERT BIGELOW PAINE

Author of "Mark Twain, a Biography," etc.

CHAPTER XXXVII

EUROPEAN ECONOMIES—MARK TWAIN PAYS HIS DEBTS—RETURN AFTER EXILE



WITH Clara and Jean, Mrs. Clemens returned to England, and in a modest house on Tedworth Square, a secluded corner of London, the stricken family hid themselves away for the winter. Few even of their closest friends knew of their whereabouts. Intime the report was circulated that Mark Twain, old, sick, and deserted by his family, was living in poverty, toiling to pay his debts. Through the

"LET HIM PASS! DON'T YOU SEE IT IS HERR MARK TWAIN?"

London publishers a distant cousin, Dr. James Clemens of St. Louis, located the house on Tedworth Square, and wrote, offering assistance. He was invited to call, and found a quiet place, the life there simple—but not poverty. By and by there was another report—this time that Mark Twain was dead. A reporter found his way to Tedworth Square, and, being received by Mark Twain himself, asked what he should say.

Clemens regarded him gravely. Then, in his slow, nasal drawl, he replied:

"Say—that the report of my death—has been grossly—exaggerated," a remark that a day later was amusing both hemispheres. He could not help his humor, it was his natural form of utterance, his medium for conveying fact, fiction, satire, philosophy. Whatever his depth of despair, the quaint surprise of speech would come, and it would be so until his last day.

By November Mark Twain was at work on his book of travel. He went out not at all that winter, and the manuscript progressed steadily and was completed by the following May (1897).

Meantime, during his trip around the world, Mark Twain's publishers had issued two volumes of his: the Joan of Arc story, and another *Tom Sawyer* book, the latter volume combining two rather short stories, "Tom Sawyer Abroad," published serially in *St. Nicholas*, and "Tom Sawyer, Detective." The Joan of Arc book, the tenderest and most exquisite of all Mark Twain's work—a tale told with the deepest sympathy and the rarest delicacy—was dedicated by Mark Twain to his wife, as being the only piece of his writing which he considered worthy of this honor. He regarded it as his best book, and this was an opinion that did not change. Twelve years later, on his seventy-third birthday, he wrote as his final verdict:

Nov. 30, 1908.

I like the Joan of Arc best of all my books; and it is the best; I know it perfectly well, and besides it furnished me seven times the pleasure afforded me by any of the others: 12 years of preparation and 2 years of writing. The others needed no preparation and got none.

MARK TWAIN.

The public at first did not agree with the author's estimate, and the demand for the book was not large; but the public, later, changed its opinion. The demand for "Joan" increased with each year until its sales ranked with the most popular of Mark Twain's writings.

The new stories of *Tom* and *Huck* have never been as popular as the earlier adventures of this pair of heroes. The shorter stories are less important and perhaps less alive; but they are certainly very readable tales, and nobody but Mark Twain could have written them.

Clemens began some new stories when his travel book was out of the way, and presently with the family journeyed to Switzerland for the summer. They lived at Weggis on Lake Lucerne, in the Villa Buhlegg—a very modest five-franc-a-day *pension*, for they were economizing and putting away money for the debts. Mark Twain was not in a mood for work, and, besides, the proofs of his new book—"Following the Equator," was its final title—were coming in steadily. But on the anniversary of Susy's death (August 18), he wrote a poem, "In Memoriam," in which he touched a literary height never before attained. It was published in *Harper's Magazine* and now appears in his collected works.

Across from Villa Buhlegg, on the lake front,

there was a small shaded enclosure where he loved to sit and look out on the blue water and the lofty mountains, one of which, Rigi, he and Twichell had climbed nineteen years before. The little retreat is still there, and to-day one of the trees bears a tablet (in German), "Mark Twain's Rest."

Autumn found the family in Vienna, located for the winter at the Hotel Metropole. Mrs. Clemens realized that her daughters must no longer be deprived of social and artistic advantages. For herself, she longed for retirement.

Vienna is always a gay city, a center of art and culture and splendid social functions. From the moment of his arrival, Mark Twain and his family were in the midst of affairs. Their room at the Metropole became an assembling place for distinguished members of the several circles that go to make up the dazzling Viennese life. Mrs. Clemens to her sister in America once wrote:

"Such funny combinations are here sometimes: one duke, several counts, several writers, several barons, two princes, newspaper women, &c."

Mark Twain found himself the literary lion of the Austrian capital. Every club entertained him, and roared with delight at his German speeches. Wherever he appeared on the street he was recognized.

"Let him pass! Don't you see it is Herr Mark Twain?" commanded an officer to a guard who in the midst of a great assemblage had presumed to bar the way.

MARK TWAIN wrote much and well during this period, in spite of his social life. His article "Concerning the Jews" was written that first winter in Vienna—a fine piece of special pleading; also the greatest of his short stories—one of the greatest of *all* short stories—"The Man that Corrupted Hadleyburg."

But there were good reasons why he should write better now; his mind was free of a mighty load—he had paid his debts!

Soon after his arrival in Vienna he had written to Mr. Rogers:

Let us begin on those debts. I cannot bear the weight any longer. It totally unfits me for work.

He had accumulated a large sum for the purpose, and the royalties from the new book were beginning to roll in. Payment of the debts was begun. At the end of December, he wrote again:

Land, we are glad to see those debts diminishing! For the first time in my life I am getting more pleasure from paying money out than from pulling it in.

A few days later he wrote to Howells that he had "turned the corner," and again:

We've lived close to the bone and saved every cent we could, and there's no undisputed claim now that we can't cash. . . . I hope you will never get the like of the load saddled onto you that was saddled onto me 3 years ago. And yet there is such a solid pleasure in *paying* the things that I reckon it is worth while to get into that kind of a hobble after all. Mrs. Clemens gets millions of delight out of it, and the children have never uttered one complaint about the scrimping from the beginning.

By the end of January, 1898, Clemens had accumulated enough money to make the final payments to his creditors. At the time of his failure he had given himself five years to achieve this result. But he had needed less than four. A report from Mr. Rogers showed that a balance of thirteen thousand dollars would remain to his credit after the last accounts were wiped away.

Clemens had tried to keep his money affairs out of the newspapers, but the payment of the final claims could not be concealed, and the press made the most of it. Head-lines shouted it. Editorials heralded Mark Twain as a second Walter Scott, because Scott too had labored to lift a great burden of debt. Never had Mark Twain been so beloved by his fellow-men.

One might suppose now that he had had enough of invention and commercial enterprises of every sort—that is, one who did not know Mark Twain might suppose this—but it would not be true. Within a month after his debts were paid, he was negotiating with the Austrian inventor Szczepanik for the American rights in a wonderful carpet-pattern machine, and, Sellers-like, was planning to organize a company with a capital of fifteen hundred million dollars to control the carpet-weaving industries of the world. He wrote to Mr. Rogers about the great scheme, inviting the Standard Oil Company to "come in"; but the plan failed to bear the test of Mr. Rogers's investigation and was heard of no more.

Samuel Clemens's obligation to Henry Rogers was very great, but it was not quite the obligation that many supposed it to be. It was often asserted that the financier lent, even gave, the humorist large sums, and pointed out opportunities for speculation. No part of this statement was true. Mr. Rogers neither lent nor gave Mark Twain money, and never allowed him to speculate when he could prevent it. He sometimes invested Mark Twain's own funds for him, but he never bought for him a share of stock without money in hand to pay for it in full—money belonging to, and earned by, Clemens himself.

What Henry Rogers did give to Mark Twain was his priceless counsel and time—gifts more precious than any mere sum of money—favors that Mark Twain could accept without humilia-

tion. He did accept them, and never ceased to be grateful. He rarely wrote without expressing his gratitude, and we get the size of Mark Twain's obligation when in one letter we read:

I have abundant peace of mind again—no sense of burden. Work is become a pleasure—it is not labor any longer.

He wrote much and well, mainly magazine articles. He reveled like a boy in his new freedom and fortunes, in the lavish honors paid him, in the rich circumstance of Viennese life. But always just beneath the surface were unforgettable sorrows; his face in repose was always sad. Once after writing to Howells of his successes he added:

All those things might move and interest one. But how desperately more I have been moved to-night by the thought of a little old copy in the nursery of "At the Back of the North Wind." Oh, what happy days they were when that book was read, and how Susy loved it!

News came to Vienna of the death of Orion Clemens, at the age of seventy-two. Orion had

The Clemenses remained two winters in Vienna, spending the second at the Hotel Krantz, where their rooms were larger and finer than at the Metropole, and even more crowded with notabilities. Their salon acquired the name of the "Second Embassy," and Mark Twain was, in fact, the most representative American in the Austrian capital. It became the fashion to consult him on every question of public interest, his comments, whether serious or otherwise, being always worth printing.

He refused offers of many sorts. He declined ten thousand dollars for a tobacco endorsement, though he liked the tobacco well enough. He declined ten thousand dollars a year for five years to lend his name as editor of a humorous periodical. He declined another ten thousand for ten lectures, and another for fifty lectures at the same rate—that is, one thousand dollars per night. He could get along without these sums, he said, and still preserve some remnants of his self-respect.

It was May, 1899, when Clemens and his family left Vienna. They spent a summer in Sweden on account of the health of Jean Clemens, and located in London apartments—30 Wellington Court—for the winter. Then followed a summer at beautiful Dollis Hill, an old house where Gladstone had often visited, on a shady hill-top just outside of London. The city had not quite enclosed the place then, and there were spreading oaks, a pond with lily-pads, and wide spaces of grassy lawn. The place to-day is converted into a public garden called Gladstone Park. Writing to Twichell in mid-summer, Clemens said:

I am the only person who is ever in the house in the daytime, but I am working and deep in the luxury of it. But there is one tremendous defect. Livy is so enchanted with the place and so in love with it that she does not know how she is going to tear herself away from it.



MARK TWAIN AT DOLLIS HILL.

died as he had lived—a gentle dreamer, always with a new plan. He had not been ill at all. One morning he had seated himself with pencil and paper and was putting down the details of his latest project, when death came—kindly, in the moment of new hope. He was a generous, upright man, beloved by all who understood him.

However, there was one still greater attraction than Dollis Hill, and that was America—home! Mark Twain, at sixty-five and a free man once more, had decided to return to his native land. They closed Dollis Hill at the end of September, and on October 6, 1900, sailed on the *Minnehaha* for New York, bidding good-by, as

Mark Twain believed and hoped, to foreign travel. Nine days later, to a reporter who greeted him on the ship, he said:

"If I ever get ashore, I am going to break both of my legs so I *can't* get away again!"

CHAPTER XXXVIII

A PROPHET AT HOME—HONORED
BY MISSOURI

NEW YORK tried to outdo Vienna and London in honoring Mark Twain. Every newspaper was filled with the story of his great fight against debt and his triumph. "He had behaved like Walter Scott," writes Howells, "as millions rejoiced to know who had not known how Walter Scott behaved till they knew it was like Clemens." Clubs and societies vied with one another in offering him grand entertainments. Literary and lecture proposals poured in. He was offered a dollar a word for his writing, he could name his own terms for lectures.

These sensational offers did not tempt him. He was sick of the platform. He made a dinner speech here and there—always an event—but he gave no lectures or readings for profit. His literary work he confined to a few magazines, and presently concluded an arrangement with Harper & Bros. for whatever he might write, the payment to be twenty (later, thirty) cents per word. He arranged with the same firm for the publication of all his books, by this time collected in uniform edition. He wished his affairs to be settled, as nearly as might be. His desire was freedom from care. Also, he would have liked a period of quiet and rest, but that was impossible. He realized that the multitude of honors tendered him was in a sense a vast compliment which he could not entirely refuse. Howells writes that Mark Twain's countrymen "kept it up past all precedent," and in return Mark Twain tried to do his part. "His friends saw that he was wearing himself out," adds Howells; and certain it is that he grew thin and pale, and had a hacking cough.

In the various dinner speeches and other utterances made by Mark Twain at this time, his hearers recognized a new and greater seriousness of purpose. It was not really new, only, perhaps, more emphasized. He still made them laugh, but he insisted on making them think, too. He preached a new gospel of patriotism—not the patriotism that means a boisterous cheering of the stars and stripes wherever unfurled, but the

patriotism that proposes to keep the stars and stripes clean and worth shouting for. In one place he said:

"We teach the boys to atrophy their independence.



MARK TWAIN IN THE DOORWAY OF HIS BOYHOOD HOME AT HANNIBAL, MISSOURI. (SEE NEXT PAGE.)

We teach them to take their patriotism at second hand; to shout with the largest crowd without examining into the right or wrong of the matter—exactly as boys under monarchies are taught, and have always been taught."

He protested against the blind allegiance of monarchies. He was seldom "with the largest crowd," himself. Writing much about our foreign affairs, then in a good deal of a muddle, he assailed so fearlessly and fiercely measures which he held to be unjust that he was caricatured as an armed knight on a charger and as *Huck Finn* with a gun.

But he was not always warlike. One of his speeches that winter was made at a Lincoln birthday memorial at Carnegie Hall, and Colonel Henry Watterson, a former Confederate soldier, also spoke.

"Think of it!" he wrote Twichell, "two old rebels functioning there; I as president and Waterson as orator of the day. Things have changed somewhat in these forty years, thank God!"

The Clemens household did not go back to Hartford. During their early years abroad it had been Mrs. Clemens's dream to return and open the beautiful home, with everything the same as before. The death of Susy had changed all this. The mother had grown more and more to feel that she could not bear the sorrow of Susy's absence in the familiar rooms. After a trip which Clemens himself made to Hartford he wrote, "I realize that if we ever enter the house again to live our hearts will break."

So they did not return. Mrs. Clemens had seen it for the last time on that day when the carriage waited while she went back to take a last look into the vacant rooms. They had taken a house at 14 West Tenth Street, New York City, for the winter; and when summer came, they went to a log-cabin on Saranac Lake, which they called "The Lair." Here Mark Twain wrote "A Double-barreled Detective Story," a not very successful burlesque on Sherlock Holmes. But most of the time that summer he loafed and rested, as was his right. Once during the summer he went on a cruise with Mr. Rogers, Speaker "Tom" Reed and others, on Mr. Rogers's yacht.

THE family did not return to New York. They took a beautiful house at Riverdale on the Hudson—the old Appleton homestead. Here they established themselves and settled down for American residence. They would have bought the Appleton place, but the price was beyond their reach.

It was in the autumn of 1901 that Mark Twain settled in Riverdale. In June of the following year he was summoned west to receive the degree of LL.D. from the university of his native State. He made the journey a sort of last general visit to old associations and friends. In St. Louis he saw Horace Bixby, fresh, wiry, and capable, as he had been forty-five years before. Clemens said:

"I have become an old man. You are still thirty-five."

They went over to the rooms of the pilots' association, where the river-men gathered in force to celebrate his return. Then he took train for Hannibal.

He spent several days in Hannibal, and saw *Laura Hawkins*—Mrs. Frazer, and a widow, now—and John Briggs, an old man, and John RoBards who had worn the golden curls and the medal for good conduct. They drove him to the

old house on Hill Street, where once he had lived and set type; photographers were there and photographed him standing at the front door.

"It all seems so small to me!" he said, as he looked through the house. "A boy's home is a big place to him. I suppose if I should come back again ten years from now it would seem the size of a bird-house." He did not see *Huck*. Tom Blankenship had not lived in Hannibal for many years. But he was driven to all the familiar haunts, to Lover's Leap, *Tom Sawyer's* cave, and the rest, and Sunday afternoon with John Briggs he walked over Holliday's Hill—the "Cardiff Hill" of *Tom Sawyer*. It was just such a day as the one when they had damaged a cooper shop, and so nearly finished the old negro driver. A good deal more than fifty years had passed since then, and now here they were once more—*Tom Sawyer* and *Joe Harper*—two old men, the hills still fresh and green, the river rippling in the sun. Looking across to the Illinois shore and the green islands where they had played, and to Lover's Leap on the south, the man who had been Sam Clemens said:

"John, that is one of the loveliest sights I ever saw. Down there is the place we used to swim, and yonder is where a man was drowned, and there 's where the steamboat sank. Down there on Lover's Leap is where the Millerites put on their robes one night to go to heaven. None of them went that night, but I suppose most of them have gone now."

And so they talked on of this thing and that, and by and by drove along the river, and Sam Clemens pointed out the place where he swam it, and was taken with a cramp on the return.

"Once near the shore I thought I would let down," he said, "but was afraid to, knowing that if the water was deep I was a goner. But finally my knee struck the sand, and I crawled out. That was the closest call I ever had."

They drove by a place where a "haunted house" had stood. They drank from a well they had always known—from the bucket, as they had always drunk, talking, always talking, touching with lingering fondness that most beautiful and safest of all our possessions—the past.

"Sam," said John, when they parted, "this is probably the last time we shall meet on earth. God bless you! Perhaps somewhere we shall renew our friendship."

"John," was the answer, "this day has been worth a thousand dollars to me. We were like brothers once, and I feel that we are the same now. Good-by, John! I 'll try to meet you—somewhere."

Clemens left next day for Columbia, where the

university is located. At each station a crowd had gathered to cheer and wave as the train pulled in, and to offer him flowers. Sometimes he tried to say a few words, but his voice would not come. Even *Tom Sawyer* had not dreamed of a moment like this.

Certainly there is something deeply touching in the recognition of one's native State; the return of the boy who has set out, unknown, to battle with life and who is called back to be crowned is unlike any other home-coming—more dramatic, more moving. Next day, at the university, Mark Twain, summoned before the crowded assembly hall to receive his degree, stepped out to the center of the stage and paused. He seemed in doubt as to whether he should make a speech or only express his thanks for the honor received. Suddenly and without a signal the great audience rose and stood in silence at his feet. He bowed, but he could not speak. Then the vast assembly began a peculiar chant, spelling out slowly the word *M-i-s-s-o-u-r-i*, with a pause between each letter. It was tremendously impressive.

Mark Twain was not left in doubt as to what was required of him when the chant ended. The audience demanded a speech—a speech! and he made them one—such a speech as no one there would forget to his dying day.

Back in St. Louis he attended the rechristening of the St. Louis harbor-boat; it had been previously called the *St. Louis*, but it was now to be called the *Mark Twain*.

CHAPTER XXXIX

THE CLOSE OF A BEAUTIFUL LIFE—MARK TWAIN AT SEVENTY

THE life which had begun so cheerfully at Riverdale ended sadly enough. In August, at York Harbor, Maine, Mrs. Clemens's health failed, and

she was brought home an invalid, confined almost entirely to her room. She had been always the life, the center, the mainspring of the household. Now she must not even be consulted,



"SUNDAY AFTERNOON WITH JOHN BRIGGS HE WALKED OVER HOLLIDAY'S HILL."

hardly visited. On her bad days—and they were many—Clemens, sad and anxious, spent most of his time lingering about her door, waiting for news or until he was permitted to see her for a brief moment. In his memorandum book of that period he wrote:

Our dear prisoner is where she is through overwork—day and night devotion to the children and me. We did not know how to value it. We know now.

And on the margin of a letter praising him for what he had done for the world's enjoyment, and for his triumph over debt, he wrote:

Livy never gets her share of those applauses, but it is because the people do not know. Yet she is entitled to the lion's share.

She improved during the winter, but very slowly. Her husband wrote in his diary:

Feb. 2, 1903. 33d wedding anniversary. I was allowed to see Livy five minutes this morning, in honor of the day.

Mrs. Clemens had always remembered affectionately their winter in Florence of ten years before, and she now expressed the feeling that if she were in Florence again she would be better. The doctors approved, and it was decided that she should be taken there as soon as she was strong enough to travel. She had so far improved by June that they journeyed to Elmira, where in the quiet rest of Quarry Farm her strength returned somewhat, and the hope of her recovery was strong.

Mark Twain wrote a story that summer in Elmira, in the little octagonal study, shut in now by trees and overgrown with vines. "A Dog's Tale," a pathetic plea against vivisection, was the last story written in the little retreat that had seen the beginning of *Tom Sawyer*, twenty-nine years before.

There was a feeling that the stay in Europe was this time to be permanent. On one of the first days of October, Clemens wrote in his note-book:

To-day I placed flowers on Susy's grave—for the last time probably—and read the words, "Good night, dear heart, good night, good night."

They sailed, October 24, by way of Naples and Genoa, and were presently installed in the Villa Reale di Quarto, a fine old Italian palace, in an ancient garden, looking out over Florence toward Vallombrosa and the Chianti hills. It was a beautiful spot, though its aging walls and cypresses and matted vines gave it a rather mournful look. Mrs. Clemens's health improved there for a time, in spite of dull, rainy, depressing weather, so much so that in May, when the warmth and sun came back, Clemens was driving about the country, seeking a villa that he might buy for a home.

On one of these days—it was a Sunday, in early June, the fifth—he had been out with Jean, and had found a villa which he believed would fill all their requirements. He came home full of enthusiasm and hope, eager to tell the patient about the discovery. Certainly she seemed better. A

day or two before she had been wheeled out on the terrace to enjoy the wonder of early Italian summer.

He found her bright and cheerful, anxious to hear all their plans for the new home. He stayed with her alone through the dinner hour, and their talk was as in the old days. Summoned to go at last, he chided himself for staying so long; but she said there was no harm, and kissed him, saying, "You will come back?" And he answered, "Yes, to say good night," meaning at half past nine, as was the permitted custom. He stood a moment at the door throwing kisses to her, and she returned them, her face bright with smiles.

He was so full of hope—they were going to be happy again. Long ago he had been in the habit of singing Jubilee songs to the children. He went upstairs now to the piano and played the chords and sang "Swing low, Sweet Chariot" and "My Lord He Calls Me." He stopped then, but Jean, who had come in, asked him to go on. Mrs. Clemens heard the music from her room, and said to Katy Leary:

"He is singing a good-night carol to me."

The music ceased, presently. A moment later she asked to be lifted up. Almost in that instant life slipped away without a sound.

Clemens, just then coming to say good night, saw a little group gathered about her bed, and heard Clara ask:

"Katy, is it true? Oh, Katy, is it true?"

In his note-book that night he wrote:

At a quarter past 9 this evening she that was the life of my life passed to the relief and the peace of death after 22 months of unjust and unearned suffering. I first saw her 37 years ago, and now I have looked upon her face for the last time. . . . I was full of remorse for things done and said in these 34 years of married life that have hurt Livy's heart.

And to Howells a few days later:

To-day, treasured in her worn, old testament, I found a dear and gentle letter from you dated Far Rockaway, September 13, 1896, about our poor Susy's death. I am tired and old: I wish I were with Livy.

They brought her to America; and from the house, and the room, where she had been made a bride bore her to a grave beside Susy and little Langdon.

In a small cottage belonging to Richard Watson Gilder, at Tyringham, Massachusetts, Clemens and his daughters tried to plan for the future. Mrs. Clemens had always been the directing force—they were lost without her. They finally took a house in New York City, No. 21 Fifth Avenue, at the corner of Ninth Street, installed the fa-

miliar furnishings, and tried once more to establish a home. The house was handsome within and without—a proper residence for a venerable author and sage—a suitable setting for Mark Twain. But it was lonely for him. It lacked soul—comfort that would reach the heart. He added presently a great mechanically played organ, with a variety of music for his different moods. Sometimes he played it himself, though oftener his secretary played to him. He went out little that winter—seeing only a few old and intimate friends. His writing, such as it was, was of a

of work, and wrote that pathetic story, "A Horse's Tale"; also "Eve's Diary," which, under its humor, is filled with tenderness; and he began a wildly fantastic tale entitled "3000 Years among the Microbes," a satire in which *Gulliver* is outdone. He never finished it. He never *could* finish it, for it ran off into amazing by-paths that led nowhere, and the tale was lost. Yet he always meant to get at it again some day and make order out of chaos.

Old friends were dying, and Mark Twain grew more and more lonely. "My section of the pro-



MARK TWAIN AT SEVENTY. THE SPEECH AT DELMONICO'S. (SEE NEXT PAGE.)

serious nature, protests against oppression and injustice in a variety of forms. Once he wrote a "War Prayer," supposed to have been made by a mysterious white-robed stranger who enters a church during those ceremonies that precede the marching of the nation's armies to battle. The minister had prayed for victory, a prayer which the stranger interprets as a petition that the enemy's country be laid waste, its soldiers be torn by shells, its people be turned out roofless to wander through their desolated land in rags and hunger. It was a scathing arraignment of war, a prophecy, indeed, which to-day has been literally fulfilled. He did not print it, because then it would have been regarded as sacrilege.

When summer came again, in a beautiful house at Dublin, New Hampshire, on the Monadnock slope, he seemed to get back into the old swing

of work, and wrote that pathetic story, "A Horse's Tale"; also "Eve's Diary," which, under its humor, is filled with tenderness; and he began a wildly fantastic tale entitled "3000 Years among the Microbes," a satire in which *Gulliver* is outdone. He never finished it. He never *could* finish it, for it ran off into amazing by-paths that led nowhere, and the tale was lost. Yet he always meant to get at it again some day and make order out of chaos.

Old friends were dying, and Mark Twain grew more and more lonely. "My section of the pro-

A choice example, by the way, of Mark Twain's best humor, with its perfectly timed pause and the afterthought. Most humorists would have

been content to end with the statement "I could have gone earlier." Only Mark Twain could have added that final exquisite touch—"it was suggested."

Mark Twain was nearing seventy. With the thirtieth of November he would complete the scriptural limitation, and the president of Harper's publishing house, Colonel George Harvey, proposed a great dinner for him in celebration of his grand maturity. Clemens would have preferred a small assembly in some snug place, with only his oldest and closest friends. Colonel Harvey had a different view. He had given a small choice dinner to Mark Twain on his sixty-seventh birthday, now it must be something really worth while—something to outrank any former literary gathering. In order not to conflict with Thanksgiving holidays, the fifth of December was selected as the date. On that evening, two hundred American and English men and women of letters assembled in Delmonico's great banquet hall to do honor to their chief. What an occasion it was! The tables of gay diners and among them Mark Twain, his snow-white hair a gleaming beacon for every eye. Then, by and by, presented by William Dean Howells, he rose to speak. Instantly the brilliant throng was on its feet, a shouting billow of life, the white handkerchiefs flying foam-like on its crest. It was a supreme moment! The greatest one of them all, hailed by their applause as he scaled the mountain-top. He, too, realized the drama of that moment—the marvel of it—and he must have flashed a swift panoramic view backward over the long way he had come, to stand, as he had himself once expressed it, "for a single, splendid moment on the Alps of fame outlined against the sun."

Never did Mark Twain make a more beautiful address than he gave that night. He began with the beginning, the meagerness of that little hamlet that had seen his birth, and sketched it all so quaintly and delightfully that his hearers laughed and shouted, though there was tenderness under it, and often the tears were just beneath the surface. He told of his habits of life, how he had reached seventy by following a plan of living that would probably kill anybody else, how, in fact, he believed he had no valuable habits at all. Then at last came that unforgettable close:

"Threescore years and ten!"

"It is the scriptural statute of limitations. After that you owe no active duties; for you the strenuous life is over. You are a time-expired man, to use Kipling's military phrase; you have served your term, well or less well, and you are mustered out. You are become an

honorary member of the republic, you are emancipated, compulsions are not for you, nor any bugle-call but 'lights out.' You pay the time-worn duty bills if you choose, or decline if you prefer—and without prejudice—for they are not legally collectable.

"The previous-engagement plea, which in forty years has cost you so many twinges, you can lay aside forever; on this side of the grave you will never need it again. If you shrink at thought of night, and winter, and the late home-comings from the banquet through the deserted streets—a desolation which would not remind you now, as for a generation it did, that your friends are sleeping and you must creep in a-tiptoe and not disturb them, but would only remind you that you need not tiptoe, you can never disturb them more—if you shrink at the thought of these things, you need only reply: 'Your invitation honors me and pleases me because you still keep me in your remembrance, but I am seventy; seventy, and would nestle in the chimney-corner, and smoke my pipe, and read my book, and take my rest, wishing you well in all affection, and that when you in your turn shall arrive at Pier 70 you may step aboard your waiting ship with a reconciled spirit, and lay your course toward the sinking sun with a contented heart.'"

The tears that had been lying in wait were no longer kept back. If there were any present who did not let them flow without shame, who did not shout their applause from throats choked with sobs, they failed to mention the fact later.

Many of his old friends, one after another, rose to tell their love for him—Cable, Carnegie, Gilder, and the rest. Mr. Rogers did not speak, or the Reverend Twichell, but they sat at his special table. Aldrich could not be there, but wrote a letter. A group of English authors, including Alfred Austin, Barrie, Chesterton, Dobson, Doyle, Hardy, Kipling, Lang, and others, joined in a cable.

The announcement of the seventieth birthday dinner had precipitated a perfect avalanche of letters, which continued to flow in until the news accounts of it precipitated another avalanche. The carriers' bags were stuffed with greetings that came from every part of the world, from every class of humanity. They were all full of love and tender wishes. Helen Keller wrote:

And you are seventy years old? Or is the report exaggerated, like that of your death? I remember, when I saw you last, at the house of dear Mr. Hutton, in Princeton, you said:

"If a man is a pessimist before he is forty-eight he knows too much. If he is an optimist after he is forty-eight he knows too little."

Now we *know* you are an optimist, and nobody would dare to accuse one on the "seven-terraced summit" of knowing little. So probably you are not seventy after all, but only forty-seven!

Helen Keller was right. Mark Twain was never a pessimist in his heart.

(To be continued.)



THE BRAVE CHILD

BY CORNELIA FORBES

I LIKE to go out where the water is deep,
Where it 's way above my waist,
Where little waves take me off my feet
No matter how firmly I 'm braced,
Where the water splashes into my mouth

And I taste a salty taste.
When the waves are small I 'm not afraid
No matter how far I wade and wade.
But when there comes a great big wave
I wish I had not been so brave!





Courtesy of William Macbeth.

THE NEW PLAYTHING. PAINTED BY MARY CURTIS RICHARDSON.

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ON THE BATTLE-FRONT OF ENGINEERING

BY A. RUSSELL BOND

Managing Editor of "Scientific American," and author of "With Men Who Do Things"

CHAPTER XIV

FIGHTING WATER WITH CEMENT

ONE morning late in the summer, the boys received a letter from Mr. Barto, asking them to come around to his office at half-past one on the following Saturday afternoon.

It was the first word they had received from the engineer since he had been stricken with typhoid fever, and they had no idea that he was back at work. As his home was in a suburban town, it had been impracticable for them to visit him during his illness, although they had called at his office on several occasions to inquire about him.

Mr. Barto was no less pleased to meet the boys again than they were to see him, when they called at the appointed hour, although he did accuse them jocularly of deserting him, and going into the office of a rival company!

"Well, my lads," he announced, after they had told him all about their experiences since arriving in New York, "I asked you over with the idea of doing a little sight-seeing this afternoon. How about it?"

"We are with you every time," replied Perry.

"Except the time I wanted you to go to see the Quebec bridge," he reminded them; "you balked at that, I believe."

"Well, we are not balking this time," said Jack. "What is it, another engineering battle-field?"

"Yes," answered Mr. Barto, "and I am going to take you to a field of victory this time. But we have got to go a long distance, so we'd better start at once, and I'll tell you about it on the way."

Mr. Barto tucked an engineering journal under his arm and then they started forth. When they were seated in the north-bound elevated train, he spread the magazine upon his lap and began the story:

"Bronx Borough, in the northern part of New York City, has been growing by leaps and bounds. In 1890 it contained barely 89,000 inhabitants. Twenty years later the number had grown to over 430,000. When a district blossoms out like that it means a lot of activity in building new streets, new car lines, new sewers, new electric-light lines, gas-mains, etc., to keep pace with the rapid growth and not retard it. Now this battle I am going to tell you about has to do with the troubles of the gas-company in furnishing enough

gas for the growing population. Not long ago it was realized that very soon the Bronx would be so big that it would outgrow the capacity of the gas-plant located there. Just across the river from the lower end of the Bronx is Astoria, where there is a great gas-plant; there you will find the world's biggest gas-holder; it is 300 feet in diameter, 242 feet high; it holds 15,000,000 cubic feet of gas; they make both coal-gas and water-gas there."

"Water-gas!" exclaimed Jack.

"Yes; I suppose you want me to explain that, don't you? When you blow steam over white-hot coal, you produce a gas that will burn with greater heat than common coal-gas. The only trouble with it is that it makes a colorless flame, and therefore it can't be used for lighting purposes except with a gas mantle. So they take this gas and pass it through crude oil; the gas then picks up from the oil the substance which gives a luminous body to the flame; such gas is called 'water-gas.' It is rather a stupid name, on the whole, because it gives people the idea that the gas is made directly out of water, and so ought to be sold for considerably less than the gas-company charges for it.

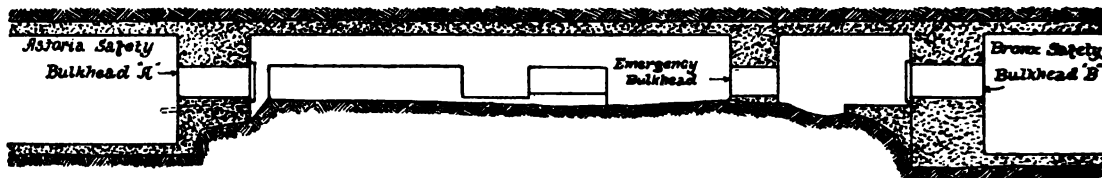
"But let's get back to our story," said Mr. Barto. "It was thought best to run beneath the river a tunnel which would take a couple of big gas-mains from the Astoria plant to the Bronx, and here," pointing to the magazine, "is the story of how it has been pushed through the rock under the river. The tunnel itself is 4662 feet long, but if we count in the shafts at each end it is about a mile long; for the tubes run about 225 feet underground."

"Two hundred and twenty-five feet! Why, that is almost the height of a twenty-story building!" put in Perry. "Why did they have to go so deep?"

"Because the river-bottom is composed of rock and is so deep that they could not use the usual pneumatic-shield method of tunneling," replied Mr. Barto. "They had to go through *solid* rock, and by going as deep as that they hoped to get through without trouble. But it also meant that if they should have a serious leak they could not depend upon compressed air to keep the water out. A hundred feet or so below water-level is close to the limit of depth at which men can work under pneumatic pressure.

"There was one spot along the line of the tunnel that was feared, and that was under the channel near the Bronx shore. A study of the geo-

First the valve at the outlet pipe is closed; then, as soon as the air inlet is opened, the trap-door is pulled up and held tightly shut by the air-



SECTIONAL VIEW OF THE TUNNEL AT THE POINT WHERE THE TROUBLE WAS ENCOUNTERED.

logical formations and a careful survey with core borings showed that there was a lot of decayed or 'disintegrated' rock there, and it was quite probable that they would encounter serious intrushes of water.

"Things went very smoothly at first, until the trouble zone was reached. Then the utmost precautions were taken. Before each move ahead, test holes were bored in all directions to try out the rock and see whether there were any dangerous faults in it. One day a test drill broke into a seam in the rock, and water poured into the tunnel at a pressure of ninety pounds per square inch. A pipe with a valve on it, but with the valve left open, was driven into the hole. It had to be anchored very securely in place, so that when the valve was closed the water-pressure would not force the pipe out into the tunnel. Then grout—that is, a mixture of cement and water—was forced through the pipe into the seam with the object of sealing up the leak. But it was difficult to accomplish anything. Apparently they could not get enough pressure behind the grout."

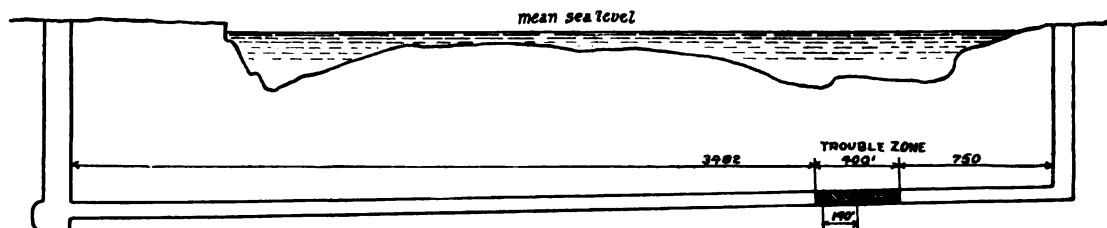
"How do they force the grout in?" asked Jack.

"It is very simple," explained Mr. Barto. "They use a machine that consists of a reservoir or cylinder, with a trap-door in the top of it through which they pour in the desired amount of cement

pressure in the cylinder. Within the cylinder there is usually a set of paddles which are turned by an air motor, and they stir up the cement and water thoroughly. This done, the outlet valve is opened and the entire charge of grout is blown into the grout pipe by the air-pressure.

"Well, as I was saying, they had all manner of trouble with that leak. And then, one day, a large section of the tunnel wall caved in and a torrent of water poured in upon them. The pumps that were installed for just such an emergency were kept going at full speed, but they barely held their own against that intrush. With the water came in tons of green sand or decomposed rock, together with shells, refuse, and mud from the river-bed. Finally the seam in the rock must have been choked somewhat because the flow began to slacken.

"A bulkhead or wall was built across the tunnel and drain-pipes were set in this wall to let the mud and water pass through while the wall was being built and the concrete was hardening. No attempt was made to stop this flow until the bulkhead was completed, and then the valves in the pipes were closed. This was the first line of defense. Back of it a second emergency bulkhead was built with doors in it that could be tripped or dropped instantly, in case of necessity. Reinforcements were brought up in the shape of ad-



PROFILE OF THE TUNNEL, SHOWING HOW IT SLANTS DOWNWARD TOWARD THE ASTORIA END.

and water. The mixture is usually about as thick as plain cream, although it may be as thin as skimmed milk. The cylinder has an outlet that is connected with the pipe that is to be grouted and an inlet connected with a high-pressure air main.

ditional pumps. The space in front of the first bulkhead was yielded temporarily to the enemy, and then steps were taken to recover the lost ground. What do you suppose they did? I will give you three guesses."

Neither of the boys could offer a single suggestion.

"Why, since the rock was so poor," declared Mr. Barto, "they proceeded to *make* some good, sound, artificial rock."

"Artificial rock?" gasped Perry.

"Yes; the general ordered up his artillery, and through the pipes they had left in their first line of defense they shot grout into the heading until the entire space in front of the bulkhead was filled with cement. When that had set, they proceeded to cut through it first with a drift or small tunnel. From this drift they bored into the faulty spots and shot in more grout. Gradually the drift was widened out. They had occasional serious reverses. At one time, 2000 gallons of water per minute came pouring in upon them. Finally, after five months of persistent work, they succeeded in recovering all their lost ground and lining the tunnel with heavily reinforced concrete.

"Six months more of fighting netted them very little further gain. And so at last it was decided to discontinue the attack from the Bronx end and to concentrate all efforts from the Astoria side. Everything went well until they had penetrated to within 400 feet of the Bronx heading, when suddenly their exploring drills struck a very heavy flow of water. The same tactics they had resorted to before were now used. They ran a small drift along one side, and from this drilled into the seam and filled it full of grout.

"In that way they slowly pushed on, always scouting ahead with test holes and grouting whenever they encountered water. Of course, as fast as the tunnel was excavated, it was lined with concrete. It is always hard to make a tight joint of the lining with the rock, and, as is usual in tunnel work, holes were left in the concrete through which grout could be forced to fill up all cracks and crannies and make a tight bond be-

tween the lining and the rock. Once a very slight blast started an extra heavy flow of water. A bulkhead had to be built to cut off the flood, and then the water, backing up over the concrete lining, came pouring through the grout holes that had been left in it. At another time there was a tremendous flow and it seemed as if the whole river was pouring in. Hundreds of live fish came through."

"Fish!" exclaimed Perry. "Oh, you are joking."



"THE WATER, BACKING UP OVER THE CONCRETE LINING, CAME POURING THROUGH THE GROUT HOLES."

"No, I'm not. The men caught them and took them home to eat. You see, there must have been a direct connection with the river overhead. There was an unlimited supply of water, the whole Atlantic Ocean in fact, for that stream to draw upon, and it was impossible for the pumps to keep the tunnel dry. But patience and persistence finally resulted in a complete victory for the engineers. The tunnel was pushed through clear from Astoria to the Bronx. But it is n't quite finished yet. The roof of the tunnel is concreted, but the bench, or lower half, is still to be excavated, so you will have a chance to see some of the seamy rock that has been bothering them."

"Then they might still have some leaks," suggested Perry, eagerly.

Mr. Barto laughed. "I am afraid you are des-

tinged to be disappointed. All their difficulties, so far, have been in the rock overhead. Now that they have a good roof above them, it is n't likely they will experience any further trouble."

CHAPTER XV

ROUTED BY A FLOOD

BECAUSE he was an old friend of the engineer directly in charge of the work, Mr. Barto had no difficulty in getting into the Astoria yards of the gas-company.

"Capen," he said, "I want you to shake hands with a couple of my young friends, Perry Carpenter and Jack Winans. We have come to congratulate you on your great victory, and incidentally to look over the battle-field."

"Victory? Battle-field?" repeated Mr. Capen, mystified. "What are you talking about, Barto?"

"Oh, you modest man!" laughed Mr. Barto. "You did n't know you were a great general conducting a long and most difficult campaign against an enemy with overwhelming forces at its command. As soon as I read the account of your struggle with floods, 225 feet below sea-level, I told the story of it to these two boys, likening the work to a great battle or military campaign. It was a brave fight you put up, Capen, and you deserved to be crowned with victory."

"Victory?" grunted Mr. Capen. "Come over here, and I will show you our 'victory'!" He led the way to the head-works, built over the shaft.

"Look down there!" he commanded.

"Why Capen!" exclaimed Mr. Barto. "It 's full of water!"

"I should say it was," agreed Mr. Capen. "Yes, it 's a branch of the East River,—that is what it is. It is low tide now, but the water will be standing four or five feet higher by seven o'clock."

"But you don't mean to tell me that the tunnel is full of water!" cried Mr. Barto.

"No, there is a little piece of the Bronx end that is still in our hands. All the rest we had to surrender to the enemy, just as that account of our work that you read was going to the press."

"But how did it happen?"

Mr. Capen shook his head. "I 've nothing to say except that we crowed too soon. But, good gracious!" he added, "who would n't have crowed? We had carved a hole all the way through from Astoria to the Bronx. We drilled test holes in every direction without striking water. The drift was widened to the full diameter of the tunnel, and we had excavated most of the bench (the lower half of the tunnel). It was all done

except for about 120 feet of bench, when one of our test holes struck water under high pressure; then more test holes found water, and, to keep the lining of the tunnel from caving in, a buttress of concrete twenty feet long was built against the side wall of the tunnel and heavily braced with timbers against the opposite side. For a week we let the water run freely through the drain-pipes while the concrete hardened, and then, when we closed the valves in those pipes, the water burst in through the bench and cracked that big buttress in two. I tell you it was disheartening to see all that water pouring in!"

"Did you catch any fish?" asked Perry.

"Not that time," replied Mr. Capen; "but plenty of material came in with the water, refuse of all kinds, tin cans, chunks of wood, and a whole lot of coal, showing there was a direct opening up to the river."

"Where did the coal come from?"

"Why, there was a coal-barge wrecked up here not long ago, and that must account for the coal."

"We started at once to build a pair of safety bulkheads at each end of the trouble zone, with doors that could be dropped in case of emergency to keep the finished sections of the tunnel from being flooded. We felt safer then and tackled that buttress again. The big concrete mass was carefully removed, and a heavier and larger one was built in its place thirty-five feet long and weighing 112 tons. It was very solidly braced against the opposite side, but when the flow of water was checked by turning the valves—would you believe it?—that whole mass cracked open and moved away from the side of the tunnel, crushing the timbers that braced it! Of course this had to be removed, too; and everything was prepared for a still more solid buttress, when suddenly the flow of water increased to such a volume that the men at work realized the emergency bulkheads would have to be used. So they closed the valves in the pipes through the bulkheads, slammed the safety-doors shut, and ran. But they were in such a hurry that they must have overlooked a valve on the Astoria side, because the water came running in there faster than we could pump it out! It was n't long before our pumps were drowned, and then there was nothing to do but watch the water rise in the shaft until it was up level with the river. Since then it has been rising and falling with the tide."

"I tell you it made us sick to see that water take possession of the tunnel! The superintendent was for taking a boat down the shaft when the flood first occurred and rowing up to the bulkhead to close the valve. He is a nervy fellow, that Jim Doyle."

"Jimmy Doyle!" cried Jack. "Is he here?"

"Why, do you know him?" asked Mr. Capen.

"We all know him," cried Perry. "Where is he?"

"Down at the Bronx bulkhead, I believe. We'll go over there, if you like, and see how he is getting on with his job. Maybe you can get him to tell you about his experiences down there when the flood came."

A launch took the party across the river. As they walked over to the shaft, Jack saw a familiar figure.

"Why, there's Jim Doyle now!" he cried, running up to the man. "Jim!" he shouted.

Jim turned abruptly. "Well, if it ain't Jack Winans!" he exclaimed. "Where did ye drop from? and Perry Carpenter! and Mr. Barto, too! Right glad I am to see ye all."

"How long have you been here?" demanded Jack.

"Oh, about a year," he said; "and, believe me, we have had as purty a job as any I ever tackled. Water all the time, just pouring through the rock like it was a sieve, and we tried to make good rock by plugging it up with grout."

"Tell them about the flow that flooded the tunnel, Jim," said Mr. Capen.

"Shucks," answered Jimmy Doyle, "there ain't much to say. If we'd only been a little quicker we would n't be settin' around here with three quarters of a mile of good tunnel full of water. You see, it was a Sunday morning about a quarter to eight when the water come pourin' in, bringin' a lot of rotten rock an' mud an' rubbish. It begun to look serious, then it slacked off, and I had the men clean away the stuff around the bulkhead doors. Then, about half past nine, there come another big rush. I seen there was nothin' to do but to hike out o' there as fast as we could. Ye never see such streams of water as came pourin' in! Ye know the tunnel slants down to the Astory end, so that, when she's finished, any water that leaks in will drain off into a sump—a kind o' well," he explained to Jack—"at the Astory shaft, where it will be pumped out. So, you see, naturally we wanted to close the Astory bulkhead first, because the water might run down and fill up the tunnel to the roof at the shaft, and trap us in there like rats; but there was so much sand an' mud come in with the water it was hard work clearin' it away to let the safety-door drop. Be the time that was done an' the valves closed it was gittin' purty deep in there outside the bulkhead, an' the men was gittin' so rattled they could n't do much. I could n't see what they was doin' on the other side o' the bulkhead, of course, but they must have forgot one o' the valves."

"But do you mean to say you stayed outside the bulkhead and cut yourself off from the tunnel?" exclaimed Perry.

"Sure; I cut meself off from the Astory end, but not from the Bronx section. Ye see, I wanted to make sure the Bronx bulkhead was closed right, too.

"As I was sayin', be the time we got the Astory drop door closed the water was backing up in there between the bulkheads purty deep. There was a 'mergency bulkhead on the bench near the Bronx bulkhead, but with a small doorway in it, and the water pushed me through that doorway faster than was dignified. Well, I got through the main Bronx bulkhead, all right, an' saw the men had all the valves closed good and tight. Then I telephoned to the other end an' they said the water was pourin' into the Astory shaft faster than the pumps could handle it. I knowed then that somebody had been too rattled to tend to business and had left a valve open in one o' them drain-pipes. I told 'em to get a boat down into the shaft at once so when I got over there I could row up to the bulkhead and see where the trouble was."

"But was n't it dangerous?" inquired Jack.

"Sure; there is danger in all this work. We don't stop to think about danger. But the water was pourin' in twicet as fast as the pumps could take it out. Those men are reg'lar dare-devils, but not one o' them would go with me, an' I seen there was no use tryin' to do anything. Well, there ain't no use talkin' about it now; the pumps was soon drowned out, but some of them kept right on workin' under water till four o'clock in the afternoon. The water kep' risin' slowly, and it was n't 'til Monday night that it reached tide level. Ye see, it takes some time to fill a hole 3600 feet long and eighteen feet acrost."

"And now how are you going to get the water out?" demanded Jack.

"Wish I knew!" answered Jimmy Doyle.

"But you are doing something," persisted Perry.

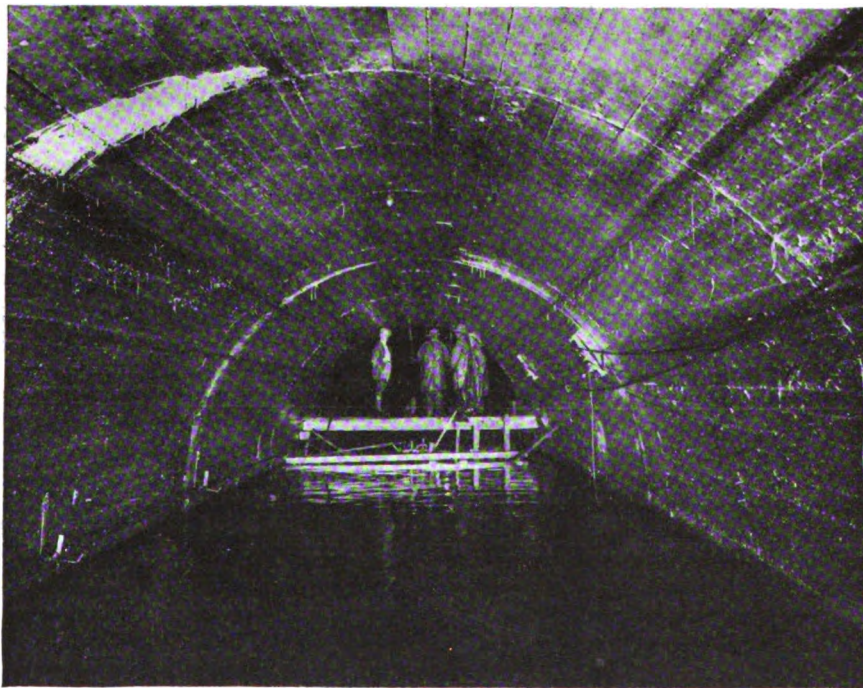
"Yes," said Mr. Capen; "come on down and I will show you what we are trying to do." They entered an elevator and were lowered far down into the rock. There they got out and walked along the dimly lighted tunnel. It did not look particularly exciting; just a great vaulted hall lined with concrete. After a short walk they came upon a group of men busily at work with a drill. Just ahead of them was the Bronx bulkhead. It gave Perry and Jack a creepy feeling to realize that behind this wall was an inexhaustible supply of water bearing on every inch of the surface with a pressure of ninety pounds.

If that wall gave way they would all be dashed to instant death.

"That bulkhead has to withstand hundreds of tons of pressure," said Mr. Capen; "the very first thing we did was to brace it with that buttress," pointing to a heavy wall of concrete that slanted against the middle of the bulkhead. "We tried, at first, to cut off the connection between the tunnel and the river by drilling holes at about the point where the flow occurred and then pumping in grout. We have given that up, for the time being, and now we are merely trying to close the leak in the Astoria bulkhead."

"But, how can you do that from here?"

"Why, simply by pumping in grout through a hole in this bulkhead. We are boring that hole now. It is mighty lucky there is such a material as cement, which can be mixed with water, and pumped like water, but which will turn into rock even when covered with water."



NEAR THE ASTORIA SHAFT—THE TUNNEL PARTLY UNWATERED

A hole had already been cut through the main bulkhead, and now they were trying to bore through the emergency bulkhead beyond. When this was penetrated, the drill rod, which was a two-inch pipe, was to be pushed on through, close to the Astoria bulkhead, and then grout was to be deposited near the bulkhead door in the hope that it would pile up against it and close off the leak.

"If necessary," said Mr. Capen, "we 'll fill the whole space between the bulkheads with grout."

"I see the battle is n't over yet," said Mr. Barto, "but I 'll bank on you, Capen. You 'll win out in the end."

CHAPTER XVI

RETRIEVING A LOST TUNNEL

It was fully a month later when the boys got back to the gas-plant and hunted up Jimmy Doyle. He led them proudly to the Astoria shaft.

"Last time ye was here, she was full up to tide level," he said. "She ain't so full now. Here, jump into this bucket and we 'll go down a leetle way."

"Why, you 've pumped it nearly all out!" cried Jack, looking down at the water far below them.

"Well, no, not exactly. There 's still enough to drown ye several times over," answered Jimmy Doyle.

When they reached the bottom they climbed out upon a pontoon that carried two of the pumps.

"Your pumps are not working, to-day, are they?" remarked Perry.

"No, we had to stop yesterday because the water was going down too fast. We 're afraid to pump any more."

"Too fast? Why, what do you mean?"

"We were pumping out the shaft and not the tunnel," answered Jimmy Doyle. "Ye know the tunnel dips so it 's twenty feet higher at the heading than it is at

the shaft. As long as no air can get in there to take its place the water just stays up in the tunnel well above the level here in the shaft."

"But what of it?" asked Jack. "What 's the reason you can't keep on pumping out the shaft just the same?"

"What of it?" echoed Jimmy. "Of course we can keep on pumpin' the shaft, but when we get low enough for the head of water to be greater

than the air-pressure in the shaft, then there 'll be a rush o' water as will wreck the whole place! No, sirree; I would n't care to be down here when all that water broke loose."

"There is n't any danger of it now, is there?" asked Perry, apprehensively.

"Well, they figger there is about a million gallons o' water held back up there, ready to swamp us if it gets a chance."

"Well, how are you going to put the air in there, then?" asked Perry.

Jimmy scratched his head. "I don't know," he said; "I've been trying to figger it out. We tried borin' through the Bronx bulkhead, but we could n't seem to make much headway. Anyway, 't ain't up to me to figger it out; that's the boss's job."

When they reached the surface again, Mr. Capen was looking for the superintendent. "I've got a scheme, Jim," he announced. "We have an air line in the tunnel. Suppose you turn on the pressure and see if you can't blow some air in."

"But, Mr. Capen," protested Jimmy Doyle, "the valves is shut, as they should be, an' ye can't put any air through. In fact I tried it meself, this mornin'."

"You did, hey?" Mr. Capen's jaws came together with a snap. "Well, try it again!" he commanded. "Throw on all the pressure you can get. We 'll blow off the end of the pipe, if necessary."

"All right, sir," replied Jimmy.

The boys went with him to the power-plant and watched him direct the starting of the big compressors. Then they noted the pressure-gage as the air-pressure was put into the pipes. They saw the pointer move jerkily from fifty pounds past the 100 mark, past 150, up to 165, then suddenly drop to thirty-five pounds.

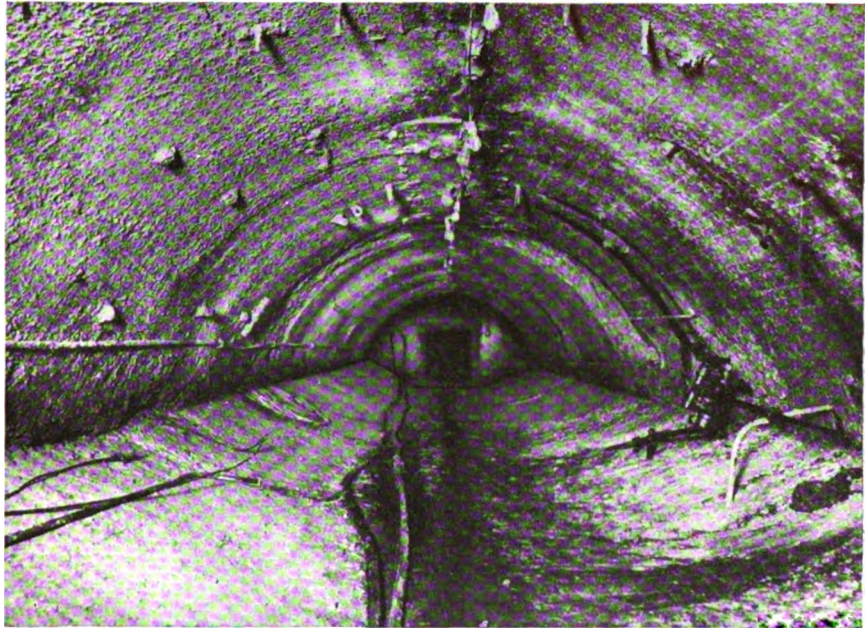
"Hurrah!" cried Perry; "there must be a blow-out somewhere."

Jimmy scratched his head perplexedly. "At 165 pounds? Never. But what could it be? It must

be that valve was open, after all. It may be. Yes, it was that chump Mike Callahan. Wait till I get him!" he cried.

"Why, what is the matter?" asked Jack.

"That valve was never shut!" declared Jimmy Doyle. "Must be there was mud or rubbish clogged in the pipe, or she would n't have blown at 165 pounds. I told Callahan to shut the valve



THE SURFACE OF THE "BENCH" IN THE TROUBLE ZONE COVERED WITH A THICK FLOOR OF CONCRETE AFTER THE TUNNEL HAD BEEN UNWATERED. (SEE PAGE 1017.)

meself, an' he told me he 'd done it. He 'll catch it for lyin' to me like that."

"Well," broke in Mr. Capen, who had just come up, "I don't know as I 'd be so hard on Callahan. It pays to have an incompetent around sometimes. Callahan has certainly done us a good turn this time. Now, if nothing happens, we 'll take a boat ride in the tunnel to-morrow or the next day and see how things look."

"My, I wish we could go down with you!" said Jack, after Mr. Capen had gone.

Jimmy Doyle eyed them narrowly, then he winked at Jack. "Tell ye what I 'll do," he whispered. "Jack, I know you for the work we 've done together. Have ye got the nerve to go in there with me as soon as the tunnel portal is uncovered?"

"Sure!" answered Jack.

"Well, you get around here to-morrow night. I figger she 'll be down low enough for us to get in then, and we 'll take a boat ride of our own before the boss gets here. But mum 's the word."

"How about me?" cried Perry. "Don't I come in on this?"

"If you've got the nerve, ye can come along too," replied Jimmy Doyle.

The next night furnished all the excitement a boy could wish. The adventure itself promised thrills enough, but what made it doubly exciting was that they were going to engage in an expedition that would surely be forbidden if Mr. Capen knew of it.

It was about two o'clock in the morning when Jimmy Doyle smuggled them into the plant.

"I've got a boat down there all ready," he said, "an' a couple of electric flash-lamps, but we'll have to wait some more. The water ain't down fur enough yet. Ye might as well get some more sleep," pointing to a cot. "She's goin' down about ten inches an hour, and the top of the portal is only just uncovered. In about three hours it'll be ready for our trip."

He lay down on a bench in the engine-house, covered himself with a heavy coat, and was soon fast asleep. As for Jack and Perry, they were far too excited for slumber. They tossed around sleeplessly for an hour or more on their uncomfortable cot. Then it seemed as if they had only just fallen asleep when Jimmy roused them.

"Come," he said, "if ye're goin' with me."

Not more than half awake, they staggered after him and climbed into the bucket that was to lower them into the shaft. At the bottom of the shaft they crawled out into a boat. It was pitch black, except for the two spots of light cast by the electric lanterns on the walls.

Perry had no idea how Jack felt, but he had to struggle valiantly against the dread that gripped him. They were going through the neck of a bottle. If anything happened, they would be trapped like rats. Obedient to Jimmy Doyle's order the two boys dropped to the bottom of the boat, while Doyle, also crouching low, propelled the craft up the tunnel by pushing against the roof with his hands.

It was not very long before they noticed a decided increase in head-room. Jimmy Doyle very wisely set the boys to work at the oars so as to keep them busy, while he played the lamp upon the water ahead, keeping a sharp watch for snags. It was not long before they could sit upright, while Jimmy Doyle directed them to pull stronger to port or starboard to avoid this or that obstacle.

Presently they waded out of the water into a soft, white mud. Jimmy Doyle stopped to examine it.

"Grout!" he exclaimed. "It must have leaked through the bulkhead somewhere, an' it was too thin to harden."

A bank of grout which gradually grew harder extended all the way up to the bulkhead door, and this they found ajar.

Jimmy Doyle stopped and scratched his head again. "So that was it!" he muttered. "Something must have caught under the door. I thought I shut it tight meself, an' here I've been blamin' the men for leavin' the drain-pipe open."

The bank of grout was so deep as to cover the drain-pipe completely, but the end of this pipe ran out into another larger pipe which led far back into the tunnel. It was good for their peace of mind that the party did not know the precarious condition of that pipe. They did not realize that their lives depended upon a few chips of wood, an old rag or two, and other bits of refuse. It was several days later that the grout was dug away enough to expose the valve of the drain-pipe, and as soon as that was touched the rubbish that choked it blew out. Immediately a heavy stream burst into the tunnel, but it was soon checked by closing the valve. Had that rubbish blown out when the two boys and Jimmy Doyle were in the tunnel, with no chance of reaching the valve, very probably the tunnel would have filled sufficiently to cut off their escape long before the boat could have been rowed to the portal.

The excavation of the bank of grout also cleared another puzzle. Jammed under the bulkhead door was a mere chip of wood an inch thick and four inches long. That was what had held the door ajar. That little bit of wood was responsible for tying up the tunnel for many weeks; and it was through the crack in the doorway that the grout, which had been pumped in from the Bronx bulkhead, had poured out into the tunnel, banking up to a depth of twelve feet before it had mounted high enough to choke off the leak.

Overhead there was a 3-inch cable-way pipe through which water was gushing in a goodly stream. But of course there was no valve on it and no way of stopping the flow.

They spent some time down there at the bulkhead, studying conditions as well as they could with their meager light; then they started back. "The pumps are doin' their duty," announced Jimmy Doyle. "No danger of being trapped this time." He pointed to a mark he had made at water level when they came in. The mark was now at least four inches above the water. They splashed back to the jam of wreckage where they had left their boat. Perry was ahead with one of the lanterns. Suddenly he gave a cry.

"The boat's gone!" he shouted.

"What's that you say?" asked Jimmy Doyle, running forward.

"Is n't this where you left the boat? Well, she 's gone."

"Huh," grunted Jimmy Doyle, scratching his head. "That 's where I left her all right, with her nose caught under that timber."

"There she is, way off there," cried Perry, focusing his lamp on an object about three hundred yards off.

"Drifted away, by Jove!" exclaimed Jimmy Doyle.

"Who 'd have thought she 'd drift away," remarked Jack, "with no wind, no waves, and no tide?"

"Hold on; there *is* a tide, ain't there? An' she 's goin' out fast," said Jimmy Doyle. "Dropped four inches while we was up to the headin'. Two inches was enough to set the boat free, an' then what with the water pourin' in through the three-inch pipe an' the pumps drawing the water out of the shaft, there must have been enough current to carry her off."

"But what are we going to do?" cried Perry.

"I s'pose we might wade as far as that," said Jack. "It can't be much more than waist-deep there."

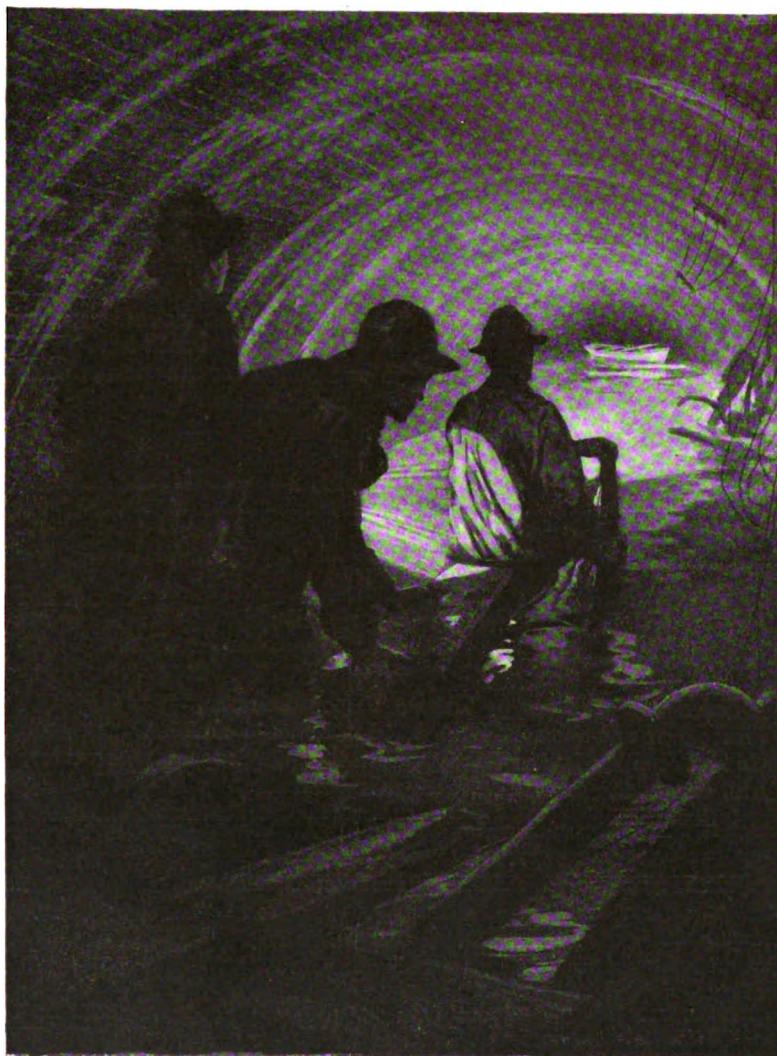
"Sure," answered Jimmy Doyle; "but what 's the use of getting wet? Give me a hand with this timber, an' I 'll show ye how to get the boat."

The boys helped him haul out a big 12 x 12 inch beam. Then sitting astride the beam, the lantern perched in front of him, and a short slab of wood for his paddle, Jimmy Doyle started off in pursuit of the drifting boat.

The boys watched him propel his unwieldy craft up the black tunnel. To them it seemed an endless time before he captured the runaway and came rowing back to them.

The trip out of the tunnel was rather prosaic, until they neared the portal. To be sure, they had more head-room than before, but somehow it seemed more alarming to be rowing into a constantly shriveling space, even though it did lead

toward the portal, than it had, before, to be traveling toward the heading. The arch above seemed to be closing down upon them as if it would crush them and bear them down into the black water. Just as the sensation was growing



"JIMMY DOYLE STARTED OFF IN PURSUIT OF THE DRIFTING BOAT."

almost unbearable, they shot out of the tunnel into the open shaft.

Months elapsed before the tunnel was finally completed. Trouble with water had not ceased entirely. As a precaution a thick flooring of concrete was made over the whole bench. Bad leaks were encountered, but much had been learned as to the best way of meeting the difficulties; and never again were the engineers obliged to give ground to the river.

(To be concluded.)



SIR GUY OF GADABOUT

A BALLAD OF DELAYS

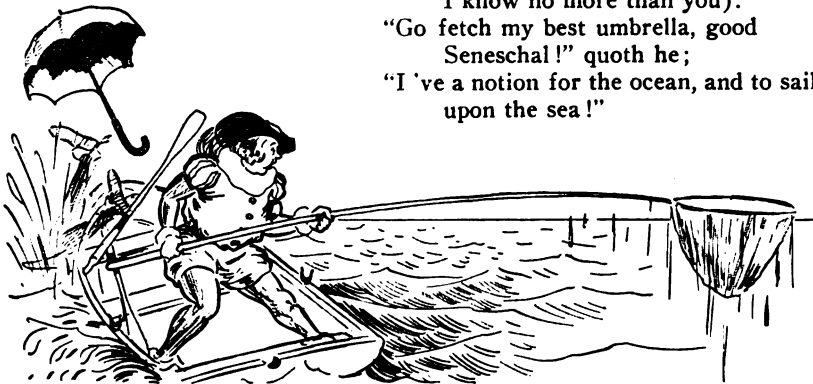
BY
Charles F. Lester

SIR GUY of Gadabout, he up and called
his trusty crew ;

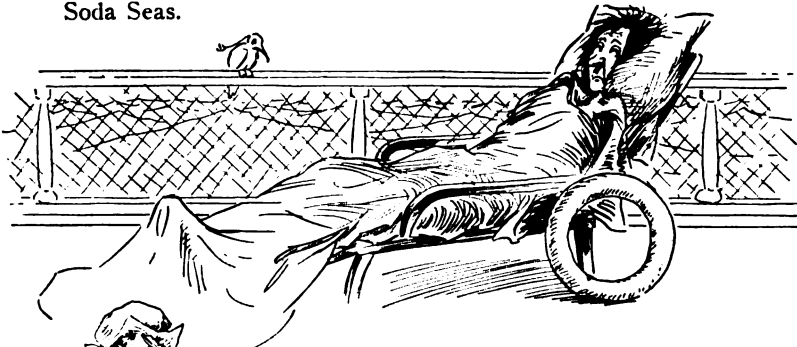
(Don't ask me *what* he called them,—
I know no more than you).

"Go fetch my best umbrella, good
Seneschal!" quoth he ;

"I 've a notion for the ocean, and to sail
upon the sea !"

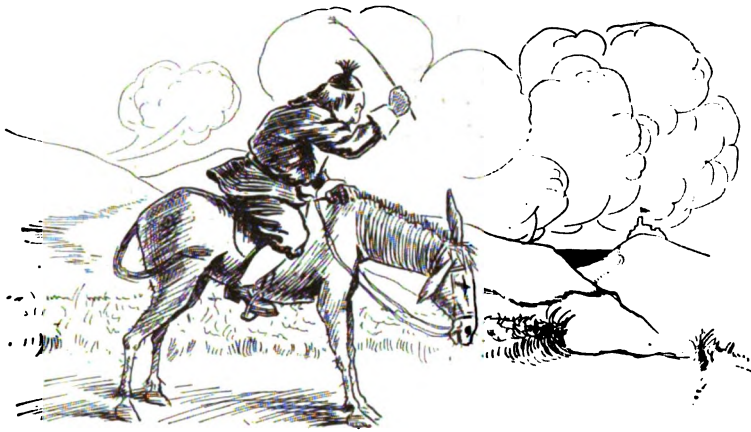


A dozen voyages Sir Guy had made upon the main,
(But never one upon the land, perhaps I should explain).
He had seen the Isle of Candy, where the gum-drops grow on trees,
And caught the currant-jellyfish that swim the
Soda Seas.

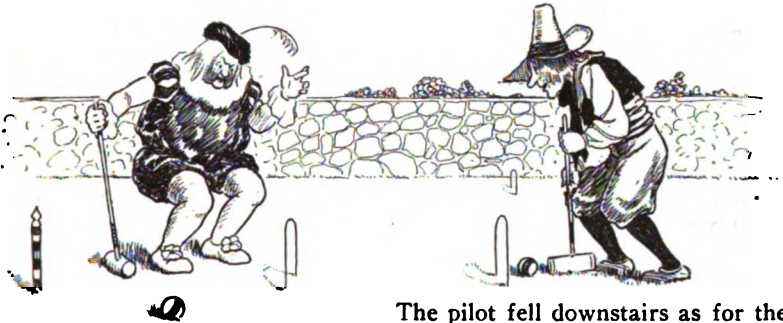


Our hero's youngest son, Gervaise, was fond of sailing, too ;
He was always dancing hornpipes, and always dressed in blue.
His brother, on the other hand (whose middle name was Jim),
Did not affect the sea, because the sea affected him.

* I wish I could describe Sir Guy's delightful daughter, Claire,
And her delicious angel-cake and lovely auburn hair ;
But 't would make me quite unhappy if I did n't tell the truth,
So I must n't mention Claire, because her name (alas !) was Ruth !



The trusty crew in answering the call were rather slow.
The bos'n started on his mule, but could n't make him go;
The cook brought his pet tortoise, which made him very late,
And they had to go through seven "movie"-shows to find the mate!

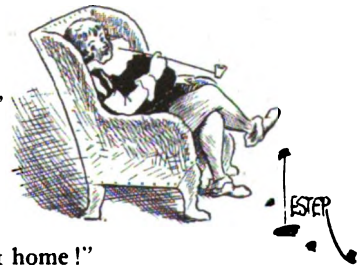


The pilot fell downstairs as for the castle he departed,
(And so, you see, he really made a trip before he'd started!)
The captain was the last to come; he could n't get away
Till he and old Sir Didabub had finished their croquet.



But finally the trusty crew had gathered, one and all,
When, with a sudden shiver, shrieked the shuddering Seneschal:
"Alack! sad news! Last week, my lord (just now I chance to think),
You lent your best umbrella to the Countess Rinkidink!!"

Sir Guy he mused. At last, "Tut-tut and eke go to!" quoth he;
"Without one's best umbrella how *can* one go to sea?
A dozen times already I have sailed the raging foam;
This would be my *thirteenth* voyage.—H'm!—I think—I'll stay at home!"



SILVERHEELS

BY GABRIELLE E. JACKSON

Author of "Denise and Ned Toodles"

CHAPTER IV

A THIEF IN THE NIGHT

FOUR days passed undisturbed save for May Lingle's incessant talk of the big, gray horse, and her assertion that she had again seen him that very morning when she went to the hen-coop for eggs

"Pooh! Nonsense!" was Mrs. Lingle's skeptical remark. "He's gone back to his home, wherever it is, long before this." But the little girl was positive of her glimpses of the "spook horse," as her father called him.

Tuesday evening, Mr. Lingle informed his wife that he must drive to a distant town early upon the morrow. "Don't bother to get up, Martha; just fix me up a bite over night, and put up a basket of luncheon, for I must be off by five o'clock."

"Not get up? I guess I *will*," cried Mrs. Lingle, indignantly. "What do you take me for? The idea of letting you start off on a cold breakfast, and drive twenty-five miles on next to nothing!" and energetic Mrs. Lingle bustled about preparing the luncheon her husband had requested. "Now I'll put the basket right outside the door on the settle, and you'll be sure to remember to take it," she said, as she fastened down the lid

"Suppose some one steals it in the night?" said Mr. Lingle, jokingly.

"Suppose the stars tumble down?" was Mrs. Lingle's retort.

About four o'clock the next morning, May started up in bed, and laying hold of Mab, cried: "Wake up quick; I hear the gray horse galloping!"

"Oh, why can't you let me alone, silly!" was Mab's sleepy reply. "It's Pa starting for Millbrook. He told you he was going early. What'd you wake me up for?"

"'T is n't Pa neither; it's too early; and besides our horses never went like that in their lives! They're too lazy to gallop. I tell you it's the gray horse, and I *know*," said May, tumbling helter-skelter out of bed to rush to the window. But it was too dark to see. "I know I heard him; I know I did," she said softly to herself, as she scuttled back into the warm bed.

"Did Pa go?" was her first question as she entered the kitchen.

"Land yes, when I finally got him ready, but I had to fix another luncheon for him, for, sure enough, some good-for-nothin'—"

She got no further, for, stammering with eagerness, May broke in: "I knew it! I knew it! I heard him! I told Mab, but she would n't believe me. I heard him right out under our window."

"Heard who? Heard what?" demanded her mother, pausing with a frying-pan in one hand and a bowl of butter in the other.

"The gray horse! I heard him galloping, and I'll bet anything he carried off the basket."

"Fiddlesticks!" said Mrs. Lingle, as she placed her frying-pan upon the stove with considerable emphasis.

"Well, I don't care, I *did* hear him," protested May, "and I'm going outside to see if I can find his footmarks," and away she hurried. Three minutes later, she came back breathless with excitement. "Come quick! Come quick! I told you so. They're there just as plain as plain can be. Come and see 'em!" and catching hold of her mother's arm, May tugged the incredulous woman to the door, Mab and the maid close upon their heels. Yes, there, sure enough, upon the soft turf were the deep indentations made by a horse's hoofs as he galloped from the house, while closer inspection disclosed other, though less distinct, marks pointing in the direction of the porch.

Mrs. Lingle looked from one to the other, utterly bewildered, and then dropped upon the porch seat, exclaiming, "Well I never!"

It was sunset when Mr. Lingle returned, and, had he been Buffalo Bill's Wild West Show, his advent could not have created a greater sensation: *tied behind the buckboard was the big, gray horse!*

May and Mab were in the dining-room doing their lessons for the next day when the sound of the wheels upon the gravel caused them to glance up. Down tumbled "Smith's Complete Etymology" with a crash, and "Guyot's Elementary Geography" took a header on top of it, as May bounced out of her chair and went tearing from the house with Mab, scarcely less excited, hot upon her heels.

"He's coming! He's caught him! He's got him! Oh, Pa, Pa, where did you catch him?" shrieked the delighted child, as she raced toward the barn.

"Hello! What 's brought you youngsters out with such a rush? Our new visitor?" he asked. May could neither see nor think of anything but the horse pawing and jerking at his leader and striving to get free.

"Whoa! Steady! Quiet there!" commanded Mr. Lingle. The animal ceased tugging, but stood trembling.

"Oh, he 's frightened; he 's dreadful' frightened!" cried May, her last remnant of fear taking flight as she saw the horse's distress, and the next instant she ran toward him with both arms outstretched, as she would have held them toward a distressed child.

"Be careful! Take care," warned her father, while Mab cried: "Oh, he 'll eat you up! He 'll eat you up!"

But if the horse had any such sanguinary idea, he certainly went about it in a strange manner, for as May ran toward him, his head was lowered, and the next second was nestled in her clasping arms, as though asking her protection from some partly understood danger.

"Well, I 'm blessed!" said Mr. Lingle, softly. "If that don't beat all, after the fuss I had to catch that fellow and bring him home. He has n't stopped cuttin' up for a minute, and seems scart to death of me, but he 'll let you handle him like a lamb. George, I 'd like to know where he came from and who owns him! He 's worth five hundred dollars if he 's worth one cent. But he 's a stranger to me. Whoa! Steady, old man," he ended, as the horse started upon his approach, and, even as he stroked the splendid neck and talked to him, nestled close to May, who hugged the big head with all her small might, rested her face against the silky ears, and talked softly to him. He seemed to consider it exactly the right style of conversation.

"Well you can't stand here all night, so come along, Gray Jacket, and we 'll put you up until to-morrow, anyway, then we 'll try to find your owner, for if he *can* be found, you must go back to him, but if he can't, why—why—then—it may be—" and Mr. Lingle's voice ended in speculative silence.

"Could we keep him then? Could we?" broke in May.

"Well, I suppose we 'd have as much claim to him as any one," replied her father, but added quickly, "though we 're not likely to have any such stroke of luck. He 's far too valuable. Come along," and he led the horse into the barn. But here a new difficulty was met with, for the horse absolutely refused to be tied in a stall. Finding the attempt useless, Mr. Lingle led him to a large box-stall at the opposite side of the

barn, and into it he walked without opposition, and settled down to the liberal feed of oats which Mr. Lingle emptied into the feed-box. The door was then closed and bolted, and Mr. Lingle and the children went back to the house, feeling confident that the animal was safe and sound for the night.

It was possibly two in the morning when Mr. Lingle was awakened by loud pounding, which for a time he believed to have been part of a dream, as he heard nothing for a few moments after waking. Then it was renewed with vigor. Springing from bed, he hastily dressed, and saying to his wife, "It 's that horse," he hurried from the room and out of the house. As he ran across the lawn, the pounding ended in a resounding crash, and out fell the barn door, while through the opening so made dashed the gray horse, to go rushing from the yard and vanish from sight in the dell below.

CHAPTER V

MAY MAKES A DISCOVERY

"WELL, I 'll be hanged!" exclaimed Mr. Lingle, as the last wave of the gray tail vanished in the moonlight.

When he reached the barn, the havoc he beheld caused him to give a long whistle. The door was split nearly in two, and kicked entirely off its hinges. Within, things were equally demolished, for the box-stall door was reduced to kindling-wood.

"By George, he must have put in a lively night of it, and no mistake!" was Mr. Lingle's comment as he viewed the wreck. Then, turning to his own horses, he strove to quiet them, for they were in a state of great excitement; midnight antics were not common in their well-regulated stable.

"Well, I guess I can't do anything to-night, and may as well go back to bed," was his wise conclusion as he left the barn.

Daylight had barely filled the world when May came running down-stairs, her thoughts brimful of their visitor. When she learned that he had taken French leave during the night, she promptly burst into tears.

"My soul and body, what are you crying about?" asked her mother. "He is n't our horse anyway, and I 'm thanking my stars he is n't; such a wild, r'arin', tearin' creature as that is n't fit to have 'round. My land! I would n't have Pa ride behind him for his weight in gold; he 'd kick him to flinders in five minutes. Just go out and look at our barn and the stall, if you want to know what kind of a horse *he* is!"

"I don't care, I just *don't!*" sobbed his champion. "He did n't kick *me*, but let me hug him all I wanted to, and I just *love* him, I do, and I want him for our own horse. We have n't *one* that 'll let me hug him as *he* did."

"Guess you ain't never tried to, have you?" was Mrs. Lingle's practical question.

"Course I have n't," answered May, indignantly. "They don't do a single thing that makes me want to, the big, stupid things."

"Well, you and Mab must come and eat your breakfast, or you 'll both be late to school, and then there 'll be more trouble afoot. Plague on that horse, I say!" and Mrs. Lingle gathered her excited family about her.

As the children set out for school their mother said: "Now, May, keep your wits about you to-day, and put that horse out of your mind, do you hear?"

"Yes 'm," answered May, absently, her thoughts elsewhere.

"If that child does n't do something foolish this day, I shall be thankful," was Mrs. Lingle's remark.

Absolute silence was maintained as the children trotted down the road. May was thinking too deeply to talk much.

"Do, for pity's sake, talk! You give me the fidgets walking along as solemn as an owl, and as still as—as—a worm!" cried Mab.

"Ugh! Why could n't you have said a mouse? I hate worms."

"And I hate mice, and crosspatches too, so there now! It's all on account of that old horse, too. Horrid old thing to smash Pa's barn all to pieces. I just wish he was dead, so I do!"

"What a wicked thing to say! You *don't* wish any such thing. That splendid big horse to be dead!" cried May, indignantly.

"I do too. He has n't done a thing but make us all nearly crazy ever since we first saw him, and you 're crazier than anybody."

Now we are assured that there is a limit to every human being's nerve tension, and in all probability May's snapped then and there. No one realized how deep a hold this whole affair had taken upon the child whose life was ordinarily so uneventful. Now, however, a crisis was reached, for, without word or warning, she turned wrathfully upon Mab and boxed her ears promptly and soundly.

Wild wails rent the autumn air as Mab shrieked, "Oh, you hateful, hateful, wicked girl! How dare you? How *dare* you? I 'm going right straight home to tell Ma, and you see if you don't catch it!"

"Well go, tattle-tale, and then you 'll catch it,

too, for you 'll be late to school. What did you tease me so for anyway?"

"I did n't! I only said—"

"You *did!* and I think you 're hateful, too, and I don't care anyway,—no I don't, don't, don't!" and without more ado, May broke away from her astonished sister and fled down a wood path which just at that point branched off from the main road.

"Come back! Come back! You 'll be late to school!" screamed Mab, too startled by this new outbreak to continue her wails.

"Won't come back! Don't care if I am late. I 'm not going to school anyway, but you 'll be late, too, if you don't go on quick," called back the rebellious one as she rushed along and quickly disappeared in the gloriously tinted woodland.

Completely nonplussed, Mab sat down upon a big stone. In all her nine years, never had she and May come to such an issue as this. What should she do? Home was much farther away than the school-house, which she could see from where she sat. Duty said school. Clearly she must go there, and gathering up her books and luncheon basket, disconsolate little Mab trotted off.

Meanwhile May was having experiences of her own. She had no definite object in view, her one desire being to get away from everybody, and escape the confinement of the school, which she felt would smother her that morning. So on she ran, her hat falling off, her books dangling by their strap, and her luncheon basket jouncing about.

She had not the faintest idea where the wood-road led, but the path was most enticing with its alternating patches of sunlight and shadow and the glory of its autumn foliage. Presently its charm began to impress the sensitive child, and her nervous sobs ceased. Dear Mother Nature has many gently soothing wiles for her vexed children.

May had gone some little distance when she chanced to look down upon the soft mold of the road, and the next instant stood as though transfixed: there, directly before her, were distinct and freshly indented footmarks; footmarks which had become as familiar to her as those of her cat at home. "They 're just as clear as clear can be!" she cried, as she bent down to examine them. She was too absorbed to notice something just ahead of her. When she raised her head, she saw standing directly in the middle of the road, as though he were a statue, and regarding her with a pair of the softest brown eyes in the world, *the big gray horse*.

Down thudded the books and luncheon basket as she rushed toward him with outstretched arms. He welcomed her with a low nicker, and the next instant her arms were around his neck, her head pillowed against the splendid head which had

bethought her of taking hold of his bridle to lead him toward home. At first her intention did not seem to dawn upon him, and he went with her back to the spot where she had dropped her things, which she strove to pick up with one hand

while holding fast to her captive with the other. But the books and basket seemed possessed, and as fast as she got hold of one thing, the other tumbled down. Then help came from an unexpected quarter—the horse reached down and picked up the basket by its handle.

"Oh, you dear!" cried May. "Now come along quick, and we 'll go home," she begged, tugging at the halter; but not a step could she induce the horse to budge.

"Oh, please, please, *please* come. I 'll be *so* good to you, and so will Pa and everybody," implored the child, stroking, patting, and kissing alternately. The horse shook his head gently up and down, and nickered softly. Then, as though he had argued the question long enough, he turned sharply around and started back along the road, dragging May with him, for she had not the least notion of letting go.

On went the big gray until a sudden turn brought them to a small clearing upon which stood an old barn. Hurrying toward it, and nickering eagerly, the horse entered, stopped short beside what May mistook for a bundle of rags, and dropped

the basket gently beside it. May's eyes were slightly blinded by the sudden change from the sunlight without to the gloom within. When her vision became adjusted, she saw lying upon the dead leaves at her feet a boy not many years older than herself, whom the horse was nuzzling lovingly, but who only responded by low moans.



AT THE DOOR OF THE OLD BARN.

been lowered within her reach, as she called him all the endearing names she could think of. Could Mrs. Lingle have seen the eagerness with which he responded to the little girl's caresses, she might have retracted her words regarding him, for no human being could have manifested greater joy.

Many minutes slipped happily by before May

(To be concluded.)



WALLY SCHANG, WHO ORIGINALLY
PLAYED SHORT-STOP.

BASEBALL PLAYERS AND THEIR CORRECT POSITIONS

*How Connie Mack decided upon the positions to which
players were best suited*

BY BILLY EVANS

Umpire in the American League

EVERY fellow who has played baseball at all has his favorite position. Almost from the time he learns the

game, he selects the position he likes to play best, and often continues to play that position even though in many ways he is not suited for the place. There are a lot of fellows playing the outfield on amateur, semi-professional, and college teams who should be doing duty on the infield. There are a lot of athletes playing the infield who should be holding down berths in the outfield. And there are any number of players trying to pitch, when their talents in that direction are very slight.

In many cases star players fail to discover the position to which they are best fitted until they reach the big league, if they happen to be so fortunate. There the critical eye of the manager surveys them from every angle. Often highly exploited players are tossed into the discard after a short examination. In many other cases, players who came to the major league as infielders are made over into outfielders, players who starred as short-stops and third basemen in the bushes are rounded into expert first and second basemen. First basemen who fail at that position are often made into catchers, while fellows who came up as catchers become guardians of the initial sack.

Often mere accident makes it evident to the player that he is trying to shine at a position for which he is not fitted. Undoubtedly one of the greatest catchers developed in recent years was Wally Schang of the Philadelphia "Athletics." Schang came to the Athletics in 1913, as a promising, but far from finished, back-stop. In a very short time Schang was acting as first catcher for the World's Champions. His work was the sensation of the 1913 season, as well as of the World's

Series. A year later he performed in equally telling fashion, but failed to do anything in the after event that caused him to be talked about as he was at the close of the 1913 summer.

Stars develop quickly in baseball, if the ability is there, and Schang stands out as one of the players who came with a leap. Five years ago the youthful catcher of the Athletics was a member of the "Pullmans," a fast semi-professional team of Buffalo. He was the short-stop on the club, and considered a very clever man at that position, for, despite his powerful physique, he is very fast on his feet. Few catchers in the major leagues can run with the speed of the stocky Schang. His brother, who received a trial with Pittsburgh and made a very fine showing, was the catcher on the Pullman team. A foul tip broke one of his fingers, making it impossible for him to continue. The other catcher for the nine had been injured in a game a few days previous, so the club was without a back-stop. Because of his wonderful throwing arm, it was suggested that Schang finish out the game for his injured brother. For a time he would not listen to the plea of his team-mates. When it became apparent that he would either have to catch or allow the game to be forfeited, Schang decided he would try his hand behind the bat.

Donning the mask and protector for the first time, he asked permission to be allowed a little practice, which the umpire readily granted. The opposing team knew that Schang had a great arm, but took it for granted that he would be at a decided disadvantage throwing from the catching position instead of short-stop. During the remainder of the game, half a dozen of the opposing base-runners tried out Schang's arm, each one being thrown out by a wide margin. That performance ended any chance that Schang had of going back to the short-stop job. He became the regular catcher of the club, supplanting his brother. The next year he went to the Buffalo team of the International League, while the following year saw him blossom out as the sensa-

tion of the season and the hero of the Big Series. Truly fate played a part in shaping his career.

"That youngster is going to be one of the greatest second basemen that ever wore a pair of spike shoes. He has just found himself. Now watch him come!" It was Connie Mack who was talking; and he was commenting upon the work of Eddie Collins, who had just finished a remarkable exhibition of work around second base, ending the afternoon's play with a phenomenal catch that saved the day for the Athletics. The time was several years ago, and Eddie Collins has proved the wisdom of Mack's judgment, for he is ranked to-day as one of the greatest second basemen in the history of the game.

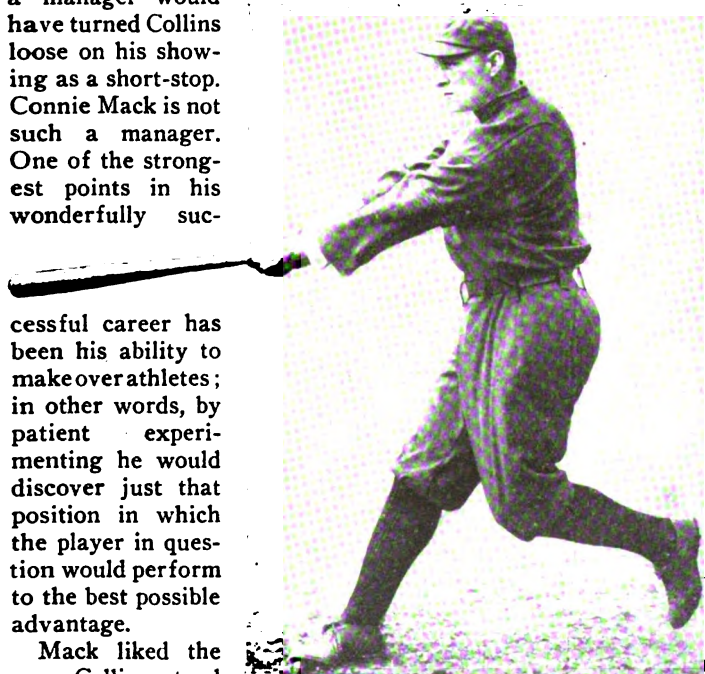
The case of Eddie Collins simply goes to show that many players are not destined to shine at the positions which they played when they joined the major leagues. Eddie Collins came to Mack as a short-stop. He was tried out at that position, and Eddie himself admits that no one could have made a worse beginning than he did. Now many a manager would have turned Collins loose on his showing as a short-stop. Connie Mack is not such a manager. One of the strongest points in his wonderfully suc-

cessful career has been his ability to make over athletes; in other words, by patient experimenting he would discover just that position in which the player in question would perform to the best possible advantage.

Mack liked the way Collins stood up at the plate. He was favorably impressed with his speed; he knew the youngster had brains; and, most of all, he admired the player's gameness, as the worse he played, the harder he worked. It did n't take Mack very long to determine that Collins was not destined to shine at short-stop in the big league. He early passed him up as a

short-stop possibility. What Mack wanted to know was where the youngster could show his worth, as he felt sure he had the natural ability. Collins was given a chance at third base, but he did no better than at short-stop. Perhaps the infield was not his proper sphere. A chance to play right field was next accorded him, and while he did better work in the outfield than he showed at short-stop or third base, he failed to resemble a Tyrus Cobb.

Just about this time, the reliable Danny Murphy was beginning to show signs of slowing up in his work around second base. Murphy could hit the ball as of old, but could n't cover the ground he once could, nor as much as Mack required of a second baseman. Mack needed Murphy in the line-up for his hitting, so he decided on a radical move, which at the time was much criticized. Murphy was sent to right field and Collins was given his third chance to show as an infielder, this time being assigned to second base. Many critics insisted such a move would de-



CHARLES J. SCHMIDT, OF THE BOSTON "BRAVES," NOT SUCCESSFUL AS A PITCHER, BUT HAS BECOME AN EXCELLENT FIRST BASEMAN.



HARRY GOWDY, AS CATCHER, THE HERO OF THE 1914 WORLD'S SERIES. A FAILURE AS FIRST BASEMAN.

stroy the team-work of Mack's infield, while others made the contention that Murphy would never do as an outfielder, as he would n't be able to cover enough ground. It took only a few days to demonstrate that second base was the proper position for Collins. It was after he had been

playing the position only a few weeks that Mack made the remark with which I prefaced a foregoing paragraph. Murphy, always a sure man on a fly ball, surprised every one with his ability to get over the ground. Thus, by one turn, Mack had made over two players, and added greatly to the strength of his ball club.

When Jack Barry joined the Athletics, he came direct from Holy Cross College. His baseball experience had been limited, and naturally he looked very awkward when trying to achieve some of the things a big leaguer is supposed to do with smoothness. Barry had the ability, but lacked the polish. He was sadly in need of experience. He did none too well on his first few try-outs, and many a critic rated as a good judge of ball-players passed adversely on Barry's chances. But Mack thought otherwise. He kept polishing Barry's short-stopping by putting him into the game when the opportunity was offered. Then, just at a time when people were paying little or no attention to Barry, Mack sprung him on the public as his regular short-stop. From an almost unknown youngster, Barry, in a very short time, had the baseball world talking about his brilliant work in that position.

Baker came to Mack a more finished player, having seen service in the Tri-State League. After watching him perform at third base, many critics insisted he would never do. Mack's argument was that any player who could hit the ball as Baker did, simply *had* to do! While not a Jimmie Collins in fielding, Baker is far from a failure when it comes to defending the third sack.

"Rube" Oldring, to my thinking, is one of the greatest outfielders in the business. He is wonderfully fast, can go a long distance and capture flies, is almost a sure catch, and is a good batsman and base-runner. Despite the wonderful success he has had as an outfielder, Oldring came to Mack as a third baseman, and the fact is he was a good third baseman. Mack at the time was well fortified at third, but was sadly in need of a fast outfielder. It occurred to him that Oldring was just the man to fill the long-felt want, so Oldring was shifted to the outfield. He was such a success that he never got a chance to work as an infielder, except a couple of times when he filled in because of injuries to some of the regulars. It is doubtful if Oldring would ever have been the star at third that he has been as an outfielder, because it apparently was n't his best position.

Mack's biggest surprise, however, was when he made a first baseman out of "Stuffy" McInnis. In so doing, Mack defied all the laws of baseball,

by making a first sacker of a player short of stature. McInnis came to Mack as a short-stop. His experience, like that of many of the stars on



JAKE DAUBERT, STAR FIRST BASEMAN OF THE BROOKLYN NATIONAL LEAGUE, BEGAN HIS PROFESSIONAL CAREER AS A PITCHER.

the famous team, had been very limited. In Jack Barry Manager Mack had a short-stop who was more than filling the bill, so things did n't look very bright for McInnis to win a place at that position. But he early demonstrated that he could hit the ball. In fact, he looked so well at the bat that Mack was anxious to use him as a regular. Collins, Baker, and Barry formed a trio of stars that made McInnis's chances of breaking in at second, third, or short very slight. At first base was Harry Davis, a great player when at his best, but then showing the effect of age; and it was evident to Mack that Davis had only a few years of service left. Why not make a first baseman out of McInnis? That is the very question Manager Mack put to himself. He decided to take a chance, but proceeded very slowly.

Every morning, while at home, McInnis would work out at first base. On the road he would divide time at the bag with Davis during the practice session. In between innings he would warm up the Athletic infielders when they took to the field. McInnis played the bag most of the time in practice, Davis confining his efforts almost en-

tirely to the game. McInnis took to the initial sack in fine style. It was n't long until he began to make all kinds of clever plays, while no bad throw seemed too difficult to handle. Baseball fans and critics, having always seen a big fellow play first base, feared that lack of height would prove a severe handicap to McInnis. It was generally believed that Mack was making a mistake in playing McInnis at first, that he was out of his position. But it was not long before he came to be regarded as one of the very best men in the game at that position.

Often players who get along fairly well at certain positions in the minors fail to make good when they enter the big leagues. In many of these cases the player is out of his position, and is trying to make good at a job he was never cut out to fill. Quite often these players are turned loose without getting much consideration. It is the wise manager who can see the diamond in the rough, and by experimenting is able to determine whether there is any place on the field wherein a seeming failure is destined to shine. Because of the great demand for players of big-league ability, and the scarcity of such talent, present-day managers are paying more attention than ever to recruits. Falling short in a position which a player has been accustomed to playing is no sign that the athlete might not prove a great success in some other post.

Several years ago a certain major league club drafted a third baseman from one of the smaller leagues. The club which secured the player boasted of one of the best third basemen in the country. When the youngster learned that he had been taken by that club, he felt none too confident as to his chances for success. Imagine the surprise of the big-league manager when he received a letter from the youngster in which he stated that he was a third baseman, and that the club had certainly made a mistake when they secured him. It made the manager smile softly, but he wrote the player and requested him to report, telling him he was badly in need of outfielders, and if there was no room at third, he had a good chance of winning a regular berth in the outfield. That is just what the youngster did, and to-day he is rated far better than the average player. Much of the success of the great managers like Mack, McGraw, Jennings, Clarke, Stallings, and Griffith has been due to their ability to discover the player's proper place, and then get every ounce of work possible out of him.

Size is regarded as very important by many managers in their selection of players for various positions. There are very few leaders who look with favor on small men as pitchers. True, ma-

jor league records contain the names of many small men who were star pitchers; but the same records show that a majority of the stars were six-footers. Possibly this accounts for the fact that managers seem to favor big pitchers. Pitching a ball game is a severe strain, and most managers believe the big, husky fellow is better able to stand the work than an undersized man. Often a promising recruit fails to get the attention he desires simply because of his lack of size.

A good-sized catcher, also, is usually preferred to the man of small or average stature. Playing to pitchers with great speed and others who use the spit-ball almost entirely, or to southpaws with a big curve and a deceptive cross-fire, keeps the catchers constantly in action. Another reason a good-sized catcher is looked upon with favor by the manager is because most pitchers would much rather work with a big fellow. The husky man offers a fine target for the pitcher, and usually greatly helps him to acquire control.

First base is another position where the big rangy fellow gets the preference. The reason,



"TY COBB, ONE OF THE GREATEST OUTFIELDERS WHO EVER LIVED, WOULD HAVE MUCH PREFERRED TO BE A PITCHER."

of course, is that the added height often saves many wild throws that would ordinarily sail over the average player's head. It also aids him in

reaching out for widely thrown balls. At short and second, the little fellow usually shines. Some of the greatest short-stops and second basemen have been men very short of stature: Bush of Detroit, Maranville of Boston, Evers of Boston. The big or little fellow seems to get along pretty well at third, while in the outfield size is seldom given any consideration. It is speed, judgment, fielding and batting ability that count in this department.

Left-handed throwers who desire to play the infield should confine their efforts to first base. The records of baseball fail to show a left-handed thrower successful in any infield position other than first base. This is due to the fact that a left-handed thrower who tries to play second, third, or short-stop is always off his throwing balance when he gets a ground ball. It is necessary, therefore, that he should change his position before he can make a throw to any of the other bases with any degree of accuracy. A left-hander is conceded to have considerable advantage over a right-hander in playing first base. This is because a left-handed thrower at first base is always in a position for throwing to any of the other infielders or catcher without having to make any shift. In handling bunts, and attempting a force-play at some other base, the fraction of a second saved in being able to field and throw with practically the same motion gets the verdict on many close plays. Left-handed throwers are under a serious handicap when trying to catch. A catcher who throws right-handed will tell you it is much easier to throw to second with a right-handed batter up than a left-hander. A right-handed batter gives the catcher a clear view of second base and the runner. With a left-handed batter it is slightly obscured. The majority of batters are right-handers. Players who throw left-handed should choose only pitching, playing the outfield, or holding down first base.

I don't think a greater first baseman ever lived than Hal Chase. There was nothing he could not do brilliantly around the initial sack. His quick-thinking brain often made him look foolish, be-

cause it moved faster than the wits of some of his team-mates. I once saw him make a play at the plate which would have gotten the runner by a yard if the catcher had been expecting it. No one but Chase figured there was a chance to get the runner at the plate, consequently his perfect throw went on to the grand stand, and three runners scored instead of the one who would have crossed the plate had he done the expected merely. Had the catcher been looking for the play, the runner would have been retired, and the play would have been considered a marvelous one. As it was, Chase was "roasted" for not "playing safe." On a ground ball he is a wonder, and in touching runners around first base he has no superior. Chase had an ambition to play second base, despite the fact that critics admitted he was the best first-sacker. Most players would have been satisfied with that honor. Chase was given permission to play second base, but after a week's trial he gave it up. The fact that he threw left-handed was a severe handicap, while the position he was forced into when taking a thrown ball from the catcher made it a very difficult matter for him to touch base-runners, a feature of the game at which he excelled when playing first.

Don't be disappointed, therefore, if you are not doing very well at the position where you like best to play. Undoubtedly there is some position on the field to which your talents are just suited. Shift around in practice, try them all out, and some day you may discover that while only an ordinary second baseman, you can easily become a leader at third. Even the big stars of the game are not satisfied with their lot. Ty Cobb, one of the greatest outfielders who ever lived, would have much preferred to be a pitcher. Even to this day Cobb warms up with the catchers before the game. Whenever Detroit plays an exhibition game, it is almost a certainty that Cobb will be allowed to pitch an inning or two before the game is over. There are any number of star pitchers who have a liking for some position in the infield, and the daily practice always finds them working out at that position.

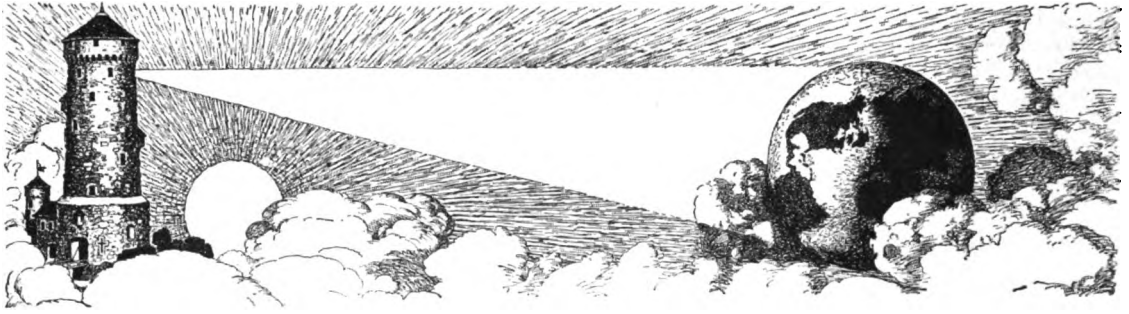
FREE

I WISH I were that poplar-tree,
Because he is so tall that he
Can stretch above the fence and see
The ball game, plain as plain can be!
Mary Carolyn Davies.



FAMILY CARES

I'd rather be with Nell and May out underneath the trees.
It's bright and cool, and everything is moving in the breeze.
But children must be neatly dressed; and after all, you see,
I only do for Susan Jane what Mother does for me.



THE WATCH TOWER

BY S. E. FORMAN

Author of "Advanced Civics," "A History of the United States," etc.

THE GREAT WAR

At the end of the second year of the Great War the death-dance in Europe was going on as madly as it was at the end of the first year. But the second year closed with a new situation on all the fronts. From the beginning of the struggle until last June Germany was on the offensive and the Allies were on the defensive. For nearly two years the task of the Allies was to check as best they could a foe that was advancing upon them. At the opening of the third year all this was changed. In August the Allies were advancing upon the Teutons, who were now in turn straining every nerve to check the furious offensive movements of the Allies and to save themselves from being crushed by overwhelming forces. For never since the outbreak of the war have the Allies had so many troops in the field, nor have they been so well supplied with ammunition. Great Britain has in France millions of soldiers, where a year ago she had hundreds of thousands, while on the eastern front the armies of Russia are growing larger every day. All through July the advance of the Allies upon the Teutons was so vigorous, and at the same time so effective, that it looked as if Germany and Austria would soon be standing at bay. But no one thought that they would soon be conquered. So the third year of the struggle opened with no promise of peace. The same prophets and war-experts who six months ago said that the war would end in November of this year were saying in July that Lord Kitchener was right when, nearly two years ago, he prophesied that the war would last three years. And why three years? Why not four years or five years or even longer? We are told by the experts that the fighting must continue until one side or the other is completely worn out, that only then will peace terms be considered.

If this is true, who can tell when the hour of exhaustion will come?

While the experts are guessing when the war will end, they are also making estimates of what it has already cost. The cost in money, we are told, has been more than \$50,000,000,000, a sum far too great for the human mind to comprehend. The total loss in life is estimated as between 5,000,000 and 6,000,000, while the number of wounded is placed at between 10,000,000 and 12,000,000. The total loss in killed and wounded, therefore, has been between 15,000,000 and 18,000,000. This harvest of death and suffering is also beyond our power of comprehension. In 1910 there were in the United States about 16,000,000 men between the ages of eighteen and forty-four. So if we could think of the United States as being visited by some awful calamity which either killed or wounded every man in the country under forty-four years of age, we should be able to form a dim notion of what is meant when it is said that between 15,000,000 and 18,000,000 men have been killed or wounded in the Great War.

A PEACE PARLEY WITH MEXICO

ALL through July train-loads of militiamen were being hurried to the Mexican border, and by the beginning of August more than 100,000 American soldiers were encamped along the Rio Grande. But as the number of soldiers along the border grew larger, the less likely did it seem that the war cloud would burst. Indeed, at the beginning of August it seemed our difficulties with Mexico might after all be settled at a peace parley rather than on the field of battle. About the middle of July Carranza asked Secretary Lansing for the appointment of a joint commission—each government to name three of the commissioners

—which should meet at some place mutually agreed upon and hold meetings for the purpose of settling in a friendly manner the questions relating to the withdrawal of the American troops now in Mexico and to the guarding of the border. To this proposal of Carranza President Wilson

ness, to Mexico, to the Philippines, to a merchant marine, and to woman suffrage. On the subject of the tariff there is a sharp difference of opinion between the two parties. The Democrats are in favor of taxing imported goods not with the view of keeping them out of the coun-



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AMERICAN TROOPS BREAKING CAMP IN MEXICO.

assented, and in the early days of August it seemed that the joint commission would be appointed and that peaceful relations between the two nations would for a while longer at least be maintained.

CHOOSING A PRESIDENT: THE PLATFORMS

IN the last number of *THE WATCH TOWER* it was said that the Presidential campaign was the school-time of democracy. While the political battle is being fought the people give their attention to public affairs and study the great questions which they are to settle by their votes. These questions are stated in the platforms which the political parties have adopted at the National Conventions. This year the main planks in the platforms of the Democratic and Republican parties refer to the tariff, to peace, to prepared-

try, but with the view of raising the money necessary for the support of the Government. The Republicans desire mainly to protect our manufactures from competition with foreign goods, and to secure this protection they would tax imported articles in order to keep them out of the country, rather than for the purpose of raising revenue for the Government. This means, broadly speaking, that the Republicans are in favor of a higher tariff than the one we now have. The Democrats believe the present tariff rates are high enough. On the subject of peace there is little difference between the two platforms: both parties desire to settle international disputes without going to war, and are in favor of establishing a world-court, or some kind of international association, to which nations can appeal and thereby secure in a peaceable manner redress for their grievances. Likewise, the two platforms differ but little on the question of pre-

paredness; both parties declare that we must have an army and navy strong enough to defend the country against any danger that is likely to arise. In respect to Mexico neither platform is entirely clear in its declarations. The Republicans denounce bitterly the things which have been done in Mexico by the present administration, and they promise protection to American citizens in Mexico and to those along the border, but they do not say that they will intervene. The Democrats say that they hate the idea of intervention, but they do not promise that they will not intervene. Upon the Philippine question the two platforms do not seem to differ widely. The Republicans are in favor of holding on to the islands at present, on the ground that we have not yet fulfilled our duty to the Filipino people. The Democrats are in favor of giving the Filipinos their independence *some day*, but whether that day is to be a year hence or a thousand years hence the platform does not say. On the question of a merchant marine the platforms show that the two parties are in sharp disagreement. The Democrats are in favor of building up our shipping interests by a system of government-owned vessels. The Republican platform declares for a system of subsidies in the form of extra compensation paid to the owners of ships for the carrying of mails, the subsidy being given for the purpose of encouraging private capital to engage in the shipping business. The planks on woman suffrage in both platforms are in favor of giving to women the right to vote on equal terms with men, but both platforms declare that this right should come to the women by the action of the States.

These are the main questions which have been submitted to the voters by the two great parties in their platforms. You will observe that on most of the issues the Democrats and the Republicans do not differ to any great extent. As far as the utterances of the platforms are concerned, we may expect the Democrats, if they are victorious, to deal with the subjects of peace, preparedness, and woman suffrage in much the same way as they will be dealt with by the Republicans if they are victorious. It is only on the subjects of the tariff and the merchant marine that the differences between the two parties are sharp and clear.

But there is still one other question, and a very important one, which is raised by the platforms and which will have to be settled by the votes of the people. That question is this: has the present Democratic administration managed the affairs of the nation wisely and so well that it ought to be kept in power for four years longer?

The Democratic platform declares that the present administration ought to be kept in power because it has done so well; the Republican platform declares that the Democrats ought to be turned out because they have done so badly. Here, perhaps, is the real issue which may decide the election.

HELPING FARMERS TO BORROW MONEY

For some years the farmers of Continental Europe have enjoyed a privilege which has been denied to those of the United States—that of borrowing money with the assistance of their governments. In this country the farmer has had to borrow from private individuals or institutions, often at a high rate of interest, and the result has been that less than half of our land suitable for the purpose has been brought under full cultivation. So our statesmen have been working upon a plan which will enable the farmer to borrow money upon easy terms and at the same time provide an easy method of paying off the debt. Their efforts in this direction have at last resulted in the Rural Credits Bill which has just been passed by Congress. This bill provides for a system of banks at which farmers who own land may borrow money when they need it for certain purposes connected with the occupation of farming. The new banks are to be known as Federal Land Banks, and are to be under the control of the National Government. The Land Banks will lend the money at a rate of interest not higher than six per cent., and will allow the farmer to pay off the debt, both principal and interest, in fixed small sums. Thus, if a farmer needs a thousand dollars to build a barn, he may borrow it from the Land Bank and arrange to repay it during a period not shorter than five years nor longer than forty years. Let us suppose that he wants the loan to run for twenty years, and that he wishes to make a fixed payment every year. In such a case, if the interest is five per cent., he pays every year \$80.24, and at the end of twenty years he finds that his debt has been entirely wiped out. If at any time after five years he wishes to make larger payments on the loan, and thus pay off the debt more quickly, he is permitted to do so. If the farmers of the country will take advantage of the aid which Uncle Sam's Land Banks will give them, they will be able to improve their farms and pay for the improvements without suffering the hardships which they now so often undergo when they are burdened with debt.

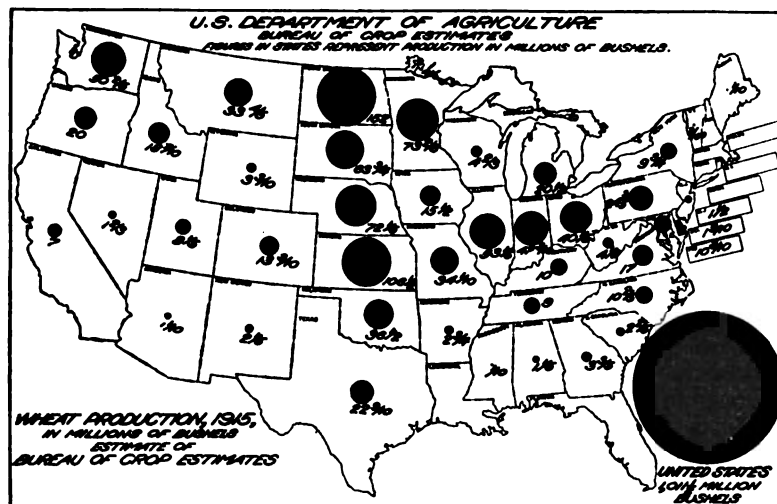
KEEPING AN EYE ON THE CROPS

THROUGH the Department of Agriculture, Uncle Sam is performing wonders in advancing the interests of our farmers. He has secured the assistance of more than 700,000 persons, most of them successful farmers, who aid the department by furnishing it with information, by trying ex-

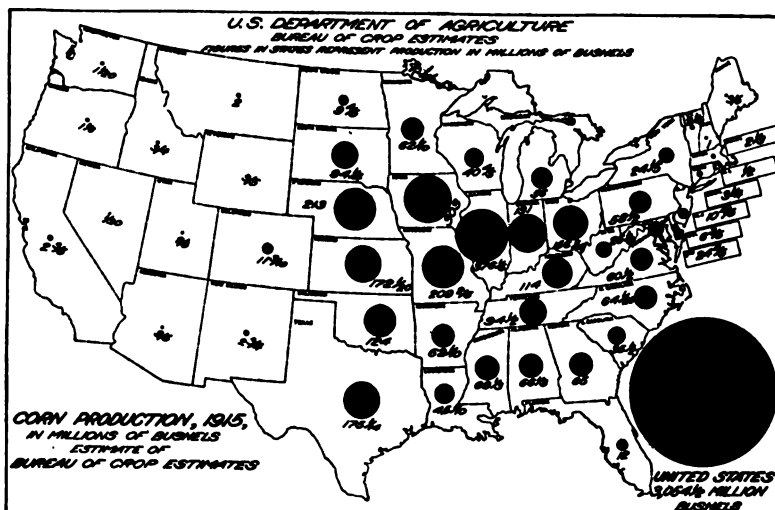
which he lives. He studies the subject farm by farm. He learns the number of acres that each farmer has planted in cotton, wheat, corn, and other crops; he observes their condition from month to month; he makes an estimate of the probable yield per acre, and he sends the result of his observations to the Bureau of Crop Estimates, at Washington. Here scores of experts

take the reports, which come in by thousands and tens of thousands, tabulate them, and make an estimate of the total probable yield of each of the leading crops. This is given to the newspapers, and is sent out over the country to hundreds of thousands of farmers.

The crop estimates are helpful in many ways. They help the farmer in his business, for they give him useful hints as to the prices he should receive for his products. When he reads the estimates sent out from Washington, he is in a position



periments, and helping it in almost every conceivable way to gather knowledge about farming and to place that knowledge at the service of the people. Of the many things done by the department, one of the most important is to keep us informed about the condition of the growing crops and to make an estimate of the probable yield. How is this information secured, and how is this estimate made? How is it possible to foretell months ahead how much wheat and corn and oats and barley and potatoes will be raised on millions of farms which differ so much in size and in the quality of the soil? The difficult task is accomplished through a great organization of crop-reporters, numbering more than 150,000 persons, most of whom are volunteer workers. In every State and county and township, men belonging to this vast army of reporters give careful attention throughout the year to what is taking place on the farms. Each man keeps a watchful eye upon a few farms in the neighborhood in



to judge for himself about probable prices, and can decide intelligently how to market his crops and how to deal with local buyers. The estimates help the railroads which move the crops from the farm to the market, for when the probable size of the crop is known in advance, a sufficient number of cars is provided to handle it effectively and without delay. But the greatest service of the crop estimates is to keep the country informed on the question of our food-

supply. Are the farmers raising enough products to supply the nation with sufficient food at reasonable prices? Every month the Bureau of Crop Estimates gives an answer to this all-important question. For example, in July it told us that our wheat crop will probably be smaller this year than it was last year, that our corn crop will be slightly smaller, and that our potato crop will be slightly larger. But there was nothing in the estimate to cause us to fear that in the coming year there will be a shortage of food.

UNCLE SAM AND THE ROADS

WHILE Uncle Sam is planning to help the farmers to borrow money for the improvement of their farms he is also planning to give them better roads. For about the same time that Congress passed the Rural Credits Act it also passed a Federal Aid Roads Bill. This bill provides that officers of the Department of Agriculture shall work in coöperation with the road officers of the different States in the construction of rural post-roads running outside of towns having a population of twenty-five hundred or more. The National Government under our Constitution would have no right to spend money on roads over which no mail is carried, or on roads not needed for military purposes, but for the making and improving of post-roads or military roads it can spend as much money as it pleases. The Federal Aid Roads Bill provides that next year \$5,000,000 shall be spent on post-roads, and that the appropriation shall be increased at the rate of \$5,000,000 a year until 1921, when the sum provided will amount to \$25,000,000. This will make in all \$75,000,000 which Uncle Sam will spend for improving the highways of the country. The money will be divided among the forty-eight States, each State receiving a sum apportioned in the following manner: one third in the ratio which the area of each State bears to the total area of all the States; one third in the ratio which the population of each State bears to the total population of all the States; and one third in the ratio which the mileage of rural-delivery routes and star routes in each State bears to the total mileage of rural-delivery routes and star routes in all the States. According to this plan of distribution, little Delaware will get about \$125,000, while the great State of Texas will get nearly \$5,000,000, New York and Pennsylvania will each receive nearly \$4,000,000, while Ohio and Illinois will each receive about \$3,000,000. Each State must spend out of its own treasury every year as much money as it receives from Uncle Sam. So the States and

the National Government together in the next five years will spend \$150,000,000. The roads are to cost not more than \$10,000 a mile, not counting the cost of bridges. This means that 15,000 miles of good roads will be added to the 250,000 miles which we already have. It may mean, and it probably does mean, much more than this. For the Federal Aid Roads Bill marks the beginning of a new era in road construction in the United States, and it may not be long before Uncle Sam will be giving to the States hundreds of millions of dollars to help them in the building of their highways.

THE AUTOMOBILE AND THE ROADS

THE greatest friend of good roads is the automobile. Every owner of one of these vehicles wants a smooth-surfaced road upon which to run his car, and is only too willing to help in the improvement of the highways. And the owners of automobiles are numbered by the million. Last year there were in the United States more than 2,500,000 motor-vehicles. At the present time there are doubtless more than 3,000,000. If all these should form in a line, single file and ten feet apart, they would make a procession 14,000 miles in length. If the procession should speed along day and night at the rate of twenty miles an hour, it would be a month in passing a given point. The assistance which the owners of automobiles are giving to the betterment of roads is already very great and is growing greater all the time. For nearly all the money which automobilists pay for their licenses is spent directly on road construction and improvement, and they pay an enormous sum. Last year the license-fees of automobilists in all the States amounted to more than \$18,000,000, and this year they will probably amount to something like \$25,000,000. In Iowa, where there is one motor-car for every sixteen persons, the license-fees last year were more than \$1,500,000; in New York they were nearly \$2,000,000; while in California they were more than \$2,000,000. But the sum obtained from licenses is not the only revenue which the roads receive from the automobilists. In many States all the fines and penalties collected from automobilists are spent upon road improvement. Moreover, most of the States, besides charging license-fees, levy a regular property tax on automobiles, just as they levy a property tax on houses, and a part of this revenue goes to the roads. So altogether a fair share of the cost of the roads is borne by the automobile owners and no class of people enjoys them more.

NATURE AND SCIENCE FOR YOUNG FOLKS



THE TAME GULLS OF AVALON, SANTA CATALINA ISLAND, CALIFORNIA.

THE TAMENESS OF WILD ANIMALS

BY THE LATE CHARLES FREDERICK HOLDER

Author of "Life in the Open," "Along the Florida Reef," etc.

THE works of Darwin and other scientists refer to the tameness of birds. On Kerguelen Island, for instance, the penguins were not only tame, but they attacked the sailors who walked through the remarkable bird cities. Moseley in his voyage to the South Seas was struck by the tameness of birds at Inaccessible Island. The thrushes and finches here paid no attention to the men. The birds were always hopping about within a few feet of them. At Kerguelen Land, Moseley went duck shooting. A flock rose, and, instead of flying off, they wheeled, alighted within one hundred feet, and ran at him in lines, each one headed by a drake. It was curiosity. At Three Island Harbor, the teal were so indifferent to the men that they refused to fly when they came by. The little auk often came aboard the ship, and the big skaus were so tame that when the men shot a duck it was a race to see who would get it first—the skau (a large gull) or the sportsman.

It is generally in remote regions that tame wild animals are found, but there are exceptions to the rule. Any one who has habitually crossed the ferry from San Francisco to Sausalito or other places, will remember the flock of gulls which follow the boat and catch bread and crackers in the air, tossed by the passengers. Gulls follow the steamers from San Pedro to Santa Catalina Island, California (a distance, out and back, of fifty miles), daily. These birds congregate on the beach and are fed by the fishermen, and are so tame that they can almost be picked up by the men, as they alight on the boats and crowd around the fishermen. In winter, at these channel islands, many birds come into the bays, and are very tame. I have seen a boat moving along in a flock of divers and brown pelicans, which barely swam out of the way.

This is due, in all probability, to protection. People are not allowed to shoot the birds, as they are valuable scavengers, eating almost everything that is detrimental to the public health.

At Avalon, California, one of the most interesting examples of tame wild animals is to be seen

in the shape of a sea-lion, which must weigh a quarter of a ton, if not more. This great creature I have seen on the main street of Avalon, surrounded by tourists, who were snapping kodaks at it and viewing the marine giant with open-eyed wonder.

The sea-lion, which the fishermen call "Ben," is a wild animal that is the head of a rookery that has for years held ground at a point of rocks on the south end of the island. Every day these sea-lions start out on a fishing trip and follow the island up the coast; but four or five of the largest, led by Ben, frequent the bay of Avalon and give daily exhibitions that amaze the many tourists who visit it. To see a man step down onto a float and shout "Ben! Ben!" at the top of his voice, excites laughter and wonder. But in a few moments a big head appears, perhaps fifty feet from shore, then a huge animal, the size of a cow, comes up to the float and crawls upon it, or the beach, as the case may be. In summer there are too

saw Ben on one occasion come up the beach and follow the man to the sea-wall, then up a short narrow stairway used by bathers; then he was



BEN, THE SEA-LION, ACCEPTING A DINNER INVITATION.

lured into the very street, where he stood, head in air, nose up, with a sleepy expression. When he received his fish, he turned and waddled back to the water, like a huge caterpillar. There are rookeries of these animals on all the islands off the Californian coast. Sometimes two or three of the sea-lions will come out on the beach to be fed at the same time, and there is hardly a day in the season that they are not seen at the landing waiting to be fed, or tossing big fishes this way and that, surrounded by clouds of gulls.

There is a great difference in the mental attitude of devil-fishes, or octopi. In a tank in the Avalon Aquarium which contained three or four octopi all but one were timid. One attacked my hand, and one seemed to enjoy being touched. A large California sheephead in this aquarium became so tame that it liked to be scratched about the head with a stick or wire, and followed

people about the tank, especially the man who fed it. It was interesting to see it change color as the man stroked it with the wire.

It is interesting to note that certain persons have more influence with animals than others.



BEN TAKING AN ALBACORE FROM A FRIEND'S HAND.

many people around and Ben will not crawl up into the street, but he will come out on the float or beach, as shown in the accompanying photograph, and take an albacore from the man's hand—really a remarkable exhibition. I

A citizen of Pasadena, California, finds that many wild birds are so tame to him that he can approach and often pick them up, and he does not know why. A lady, greatly interested in birds, has a road-runner, a very wild and untamable creature, that has become a remarkable pet. I once had a sparrow-hawk that became so friendly that it would permit me to approach it, and fed from my hand. It was interesting to note what a discordant element this bird was in my garden, where there were nesting blackbirds, finches, humming-birds, and others, besides migrating visitors from orioles to wild canaries. The hawk roosted on a low roost made for it on the back of the veranda. The first morning it accepted it, I was attracted by a Babel of bird voices, and looking out, I saw my pugnacious friend sitting, not on the bust of Pallas, but surrounded at a safe distance by a flock of black-and-mocking-birds, all, and I say it advisedly, swearing at it in divers tongues, to which he calmly listened without a movement. For nearly an hour these birds strutted up and down, abusing the hawk, a most laughable spectacle.

The mocking-birds in my garden were remarkably tame. One would often sing all night, sitting on the chimney or housetop, or repeating over and over the repertoire of imitations which becomes monotonous to some people. They made life miserable to the dogs and cats, biting them, pulling them, and trying to drive them out. The blackbirds were equal offenders; for while stooping down, working in the garden, I have had a blackbird swoop down and pull my hair. So I became a good judge of the force they exert on



THE TAME OCTOPUS.

a dog's tail. This trick was so common that I once heard a man explain it as an attempt to "obtain hair with which to line the nest!" It was merely the bird's effort to drive everybody and any animal away from the vicinity of its nest and young in the adjacent orange-trees. The blackbirds often came down and mingled with the chickens when I fed them.

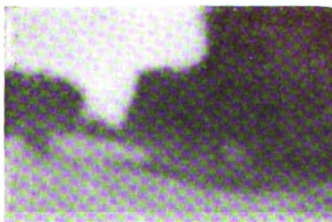


SEA-LIONS OF SANTA CATALINA ISLAND. THEY WILL ALLOW ONE TO APPROACH WITHIN A FEW FEET.

The valley quail was common here, and tame. In summer, when the protected season was on, I sometimes saw them in the suburban street in front of my house, and often heard their notes. Large flocks were to be seen at times on some of the large places outside the town. At Klamath Lake, at a hunting-lodge, I wandered out into the barn-yard one day and noticed the sign:

"Don't shoot my tame quail. How would you like to be shot?"

I inquired what this meant, when the landlord got some grain which he tossed over the ground. The chickens flocked around in numbers; and then, down among them from the pine forest near by, came a whirring sound, and a wild quail joined the flock, as tame as any chicken. The man told me it had been doing this several years and was perfectly domesticated.



THE TAME SPARROW-HAWK.

The humming-birds, which were very common in my garden, were tame in winter and spring. They often came and bathed in the spray of the hose when I was watering the plants. They would come within a foot of me; in fact, ignoring me. One little fellow roosted every day near my door, and all day long kept up a "*Tse-tse-tse*" until patience ceased to be a virtue, as the humming-bird of the ruby-throat variety is not a successful singer, at least in my opinion. The little bird, when on the nest, often allowed me to touch her, and when her young appeared I fed them, and later carried them into the house, where they became as tame as any household pet. If the birds were upstairs, we called them down as we would a dog or cat, and if at dinner, they would try to roost on the table or some object upon it. They slept in a basket in a closet in my room, and at daylight would often come out and awaken me by poising over my head, fanning my face and *tse-ing* until I awoke and they were fed with sweetened water. Visitors with flowers

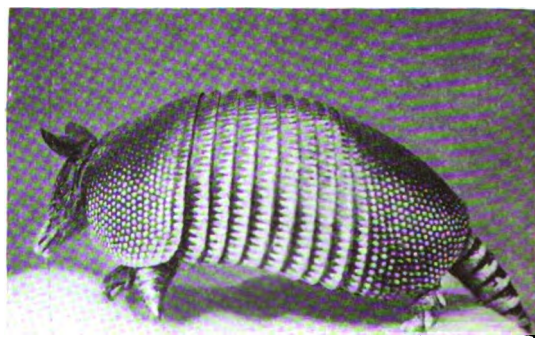
on their hats were especially attractive to them, and one lady was much alarmed at the repeated diving of the bird, thinking it a gigantic bee.

Pasadena, California, being in latitude 32°, with a mild, summer-like winter, is a resort for birds of many kinds, and on the line of the great Sierra Madre bird migration. These birds are often very social. It was with difficulty that I prevented the black-birds from nesting in my orange-trees; in point of fact, they insisted. House-finch, of beautiful morning carol,



THE AUTHOR'S TAME FALCON.

roosted in the rose and other vines on the house, nesting here also. At a friend's house a humming-bird built her nest on the gas-pipe in the ceiling of the veranda, and a house-finch nested in a swinging pot of flowers. Every day there poured in through the open window a veritable flood of song from house-finch, song-sparrows, mocking-birds, with the garrulous, "broken English" notes of the orioles who were trying to decide where to nest that year. The people of the region became accustomed to these winter songs of birds, but it is, doubtless, one of the remarkable



THE TAME ARMADILLO.

characteristics of the country appealing to the esthetic taste of lovers of good things in nature.

I have had several pet alligators who were so tame that they were disagreeable, having a pro-

pensity when you fed them to swallow you; at least they assumed that appearance to a disinterested observer.

Some years since, I struck up an acquaintance with the keeper of a number of large alligators, which were kept in a tank in a zoölogical garden in an eastern New York city. This man, a negro, confided to me that every alligator knew him and allowed him to do anything with him. The animals were from ten to fifteen feet long. I induced him to give a practical demonstration of the tameness of alligators, but the moment he descended into the tank and bent over, the largest alligator struck him a blow with his tail just below the knees and at the same time threw its wide-open mouth in the opposite direction, the obvious intention being to knock the colored gentleman into its mouth. By the activity the latter displayed in climbing out of the tank I fancied he had overestimated the *entente cordiale* that was supposed to exist between them.

A fine buffalo that was once kept at Monterey was as tame as a cow, and would permit visitors to pet it with their hands. A number of years ago a wild deer was placed on the island of Santa Catalina, which became so tame that it was a nuisance. It was undoubtedly lonesome. When travelers landed at the bay it would go down to meet them. Picnics were its especial delight, and if the picnickers did not keep watch upon it, it would proceed to eat everything within reach.

Among the fishes, tame individuals are often seen. Certain little forms, called sea-porcupines, were so tame at a certain coral-head on the Florida reef that when I placed my hand in the water they would come and rub themselves against it, displaying no fear. In a hotel at Santa Cruz, I have seen trout so tame that they would allow their owner to lift them out of the tank, and would leap out of the water and take a real fly from his fingers.

For a wild animal the armadillo is extremely tame and amenable to social intercourse. In the accompanying illustration is shown a specimen which has every appearance of being mounted or dead; but the photograph was from life, and not only was the animal well and vigorous, but it had three or four young which I was privileged to

handle and watch. The parent displayed absolutely no fear of me, nor of any one else, nor did she pay any attention to her young, who had all the tricks seen in little pigs.

For several years a hermit-crab that had taken up with a pipe bowl as a home would climb up the table-cloth in the office and wander about the table, an extraordinary little creature. Evidently it wished to be on good terms with the people around him.

So, doubtless in all branches of the animal kingdom, individuals may be found who enjoy the association with human beings, but for what reason, or why they do it, and just what their point of view is, we must leave it to the nature writer to determine and explain.

WATER FLOWS UPHILL

THAT it is possible for water to flow uphill, when the conditions are just right, has been proved by a remarkable occurrence in connection with the construction of the Panama Canal. Salt water from the Pacific Ocean has entered the canal and invaded Miraflores Lake, eight miles inland and



MIRAFLORES LAKE AND LOCKS OF THE PANAMA CANAL.

fifty-five feet above sea-level, in such quantities as to render the plan for using the lake for water-supply quite impossible.

As if the fact of water climbing a hill were not of itself remarkable enough, it should be remembered that salt water is heavier than the fresh, which would make the feat all the more difficult. In this instance, however, its weight seems actually to have helped its ascent, curious as the statement may sound.

The only possible explanation of this strange phenomenon is the diffusion of the water in the

process of lockage, which takes place in the following manner:

When a vessel is ready to ascend the Miraflores locks, she enters the lower lock and the gates are closed behind her. She is then floating in a mixture containing, perhaps, 75 per cent. of salt water from the ocean. The valves are then opened, and fresh water from the lake above is admitted into the lock through the openings in the bottom until the level of the water in the lock is raised to the level of the water in the upper lock. In this process of filling the lock the salt water and the fresh water are thoroughly mixed. The water in the upper and lower locks being now on the same level, the gates between the two are opened and the vessel is moved into the upper lock. While this movement is taking place, however, the heavier, salt water in the lower lock flows into the lower part of the upper lock by reason of its greater weight, while the lighter, fresh water in the upper lock flows rapidly over the heavier water in the lower lock. In this manner, while the vessel is being transferred from one lock to the other, a considerable quantity of the salt water enters the upper lock.

The gates are then closed behind the vessel, and fresh water from the lake is admitted through the bottom of the upper lock until it is filled to the same level as the lake. By this time, certainly, the percentage of salt water in the upper lock should be reduced to a very small amount, yet when the gates are opened and the vessel passes out into the lake, a considerable amount of the water in the upper lock-chamber flows out with it and is salty enough to make the water of the lake brackish and unfit for use. Increased traffic should naturally cause an increased amount of salt water in the lake.

ROBERT H. MOULTON.

HOW SEA-GROWTHS ARE HELD IN PLACE

In many places along the northwest coast of our country great masses of kelp and other seaweed are to be seen floating on the surface of the water at a uniform distance from the shore. How they maintain their position in the swirling tides is a question often asked.

Upon examination it will be found that these beds of seaweed are anchored by long, ropelike appendages, which, descending to a depth of about twenty-five feet, attach themselves to the boulders strewn along the ocean floor. Where the growths are fastened to the rocks they branch out and partly encircle the boulders in a tenacious formation resembling basketwork.

While these rock-anchors serve to meet the demands of ordinary conditions, it sometimes

happens that, during a storm of unusual violence, the kelp-beds are driven upon shore, dragging their anchors with them, like vessels torn from their moorings and beached. A number of years



BOULDERS PARTLY ENCIRCLED BY SEAWEED.

must elapse before a bed thus destroyed can be entirely replaced by a new growth.

These seaweeds are very rich in phosphates, and it is possible that they will have a great commercial value when a process has been worked out for the economical extraction of the various salts which they contain.

JAMES G. MCCURDY.

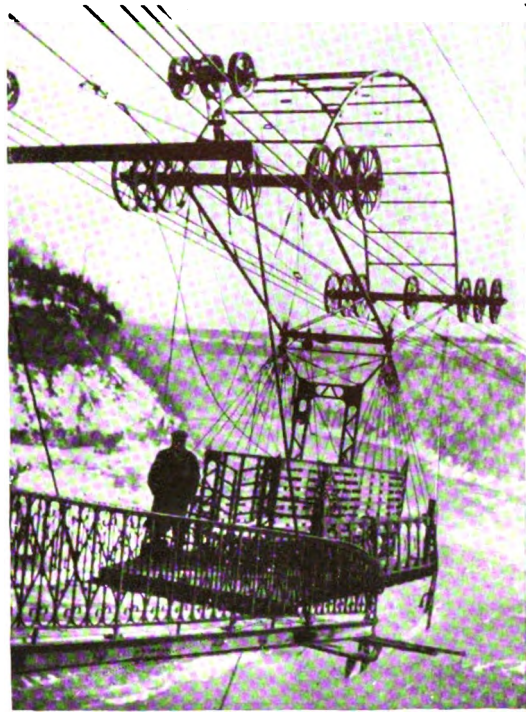
AIR-TRIPPING ACROSS THE WHIRLPOOL

How would you like to cross by wire rope the gorge into which the Niagara River pours its tumbling waters and forms the treacherous whirlpool? Well, if you are anxious for the thrill of such a journey, you now can take it. The run is a matter of a little over a third of a mile, and at the lowest point the basketlike car passes nearly 150 feet above the surface of the angry Niagara. One can well imagine the wonderful view that such an aerial trip affords, and it is for this reason that the line has been built.

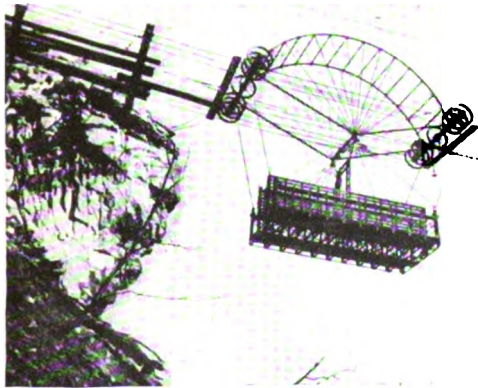
* We hear much about Yankee ingenuity and American enterprise, but this time both our own people and those of wide-awake Canada have been left behind by Spanish engineers. Probably one of the reasons for this is that the Spaniards have had experience in stretching another cableway for passenger service across a deep valley in their native country. At San Sebastian there is a towering point that commands a broad and beautiful view of the Bay of Biscay, but it was well-nigh impossible for the tourist to reach it until Engineer Torres y Quevedo found a way to stretch rails of wire rope across the intervening nine-hundred-foot chasm. Then he built a special car capable of holding fourteen passengers, and arranged so that it could be drawn over and up the threadlike cables for a climb of ninety-two feet. This was the first thing of the kind. The *aërocar* route at Niagara Falls is next in date, but is nearly twice as long as that at San Sebastian.

In order to take care of the crowd of sight-seers, the car that runs across the mouth of the whirlpool is large enough to carry forty-five passengers at a time. There are seats for only twenty-four, but a raised aisle in the center of the vehicle provides standing-room for twenty-one more. When bearing a full load, the car and the passengers will weigh seven tons. This may seem like a very heavy weight for steel ropes one inch thick to support, but Engineer Torres y Quevedo has cunningly arranged for this. There are six so-called track-cables, upon which run the twelve wheels of the trellislike arch to which the car is

But this is not the end of this Spanish engineer's skilful planning. Each one of these six



THE CAR COMING TO ONE OF THE LANDING-PLATFORMS.



THE AÉROCAR STARTING ON A TRIP.

hung. Therefore the dead weight is shared by all of these crucible-steel ropes, and the load on any one of them is only a little over a ton.

supporting cables is entirely independent of its five fellows. At one end of the line, that at Colt's Point, the six ropes are separately anchored by being wound around a great concrete block weighing 741 tons. This block is built right into the face of the cliff, and the ropes are then secured to great bolts driven into the solid rock. Now at the opposite side of the gorge, at Thompson's Point, each cable passes over a large pulley and is fastened to a great box of steel loaded with blocks of iron, making, as it were, a gigantic sash-weight of ten tons. Each of these sash-weights can move up and down in its pit a distance of fifteen feet. In this way all six cables work in unison, although independently, and rise and fall according to the weight in the car. Should any one of the cables break, there will be no danger, as the other five are amply strong enough to bear the full load. The car is drawn over and back by a seventh cable, which is operated by an electric motor. The trip will take about six minutes, and this allows for slow speed at the most spectacular part of the journey.

ROBERT G. SKERRETT.

FOR VERY LITTLE FOLK

Robert Bunny—His Story

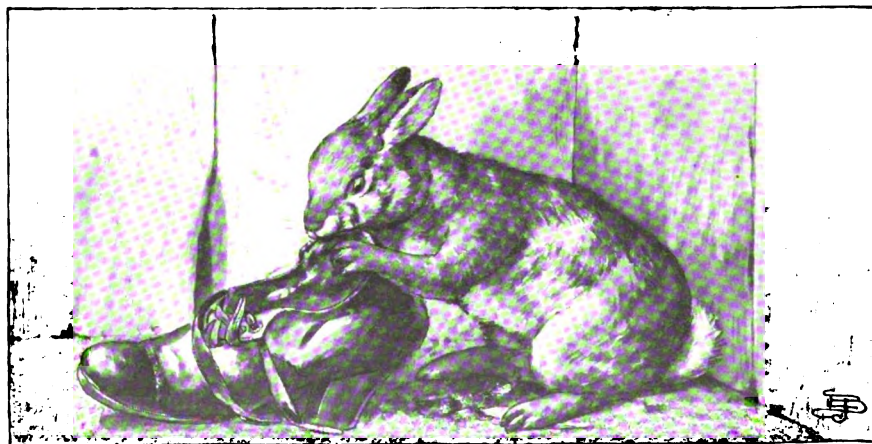
By Lucy A. West



ONE bright June day, Little Lady went for a walk with Father. When she came home, she seemed to be carrying on her arm a basket of fine lettuce, but under the bright green leaves there cuddled the finest little cottontail rabbit you ever saw. A pen was made for him under the trees, but his small owner decided it was "too hot" for bunny out of doors, so in he came.

After thinking a great deal about it, Little Lady decided that he should be called Robert, and as Bobby he soon ruled the household.

We had always supposed rabbits were stupid, but he proved to be very clever.



"IF SHOES WERE LEFT WITHIN HIS REACH—"

Each morning he waited at the door, and the moment the maid opened it, in he flew. Up the stairs his little feet scurried, and *thump!* came his hind legs down at Little Lady's door; *thump, thump!* beside the bed as he sprang into it; and then such

play! How he loved to bury his nose in her curls, and snuggle down. Sometimes they both fell asleep again.

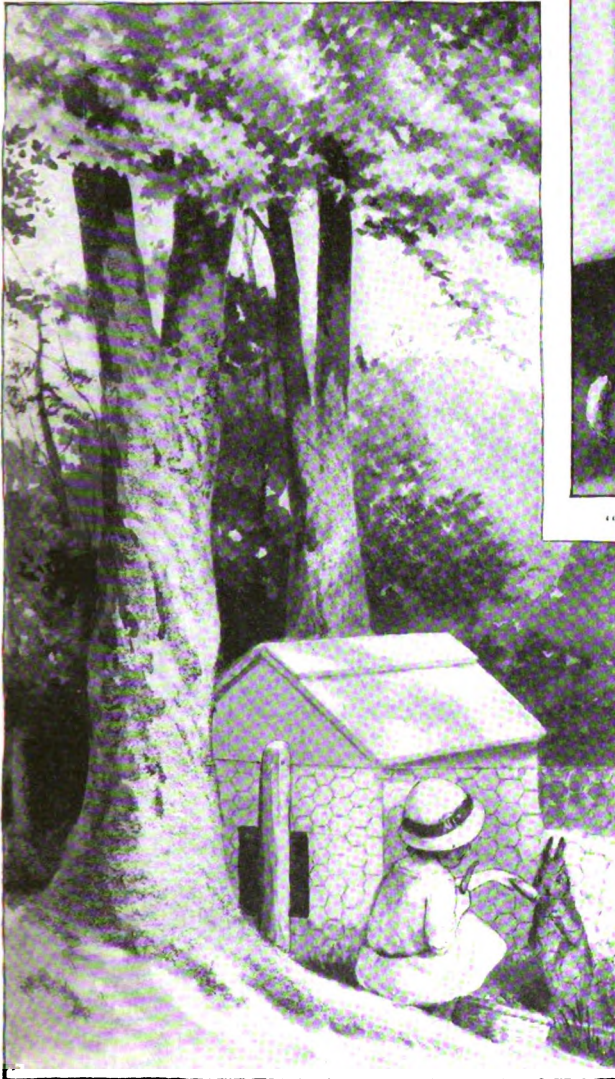
But Master Robert had his faults. A more mischievous rascal never grew.

He was like a goat in the things he regarded as food: the fringe on the rugs, the portières, the oil-cloth under the stove, the edges of the dainty, matting-covered tea-table. If shoes were left within his reach—dear, dear! the results were sad indeed. One day I found him in the middle of my bed just swallowing the finger of a new glove! As for shoe-blacking, he was devoted to it. Father declared the money he spent on “shines” was wasted, since the moment he appeared Bobby would fly to him and lap, lap with his little pink tongue until he had finished both shoes.

Bobby knew the sound of the different



“SITTING UP ON HIS HIND LEGS AND BEGGING.”



“A PEN WAS MADE FOR HIM UNDER THE TREES.”

bells, and was always the first in the dining-room; then, when the family was seated, round and round the table he would run, sitting up on his hind legs and begging a bit from each one of us.

Such a dainty laddie he was; if a bit of dust or dirt chanced to fall into his dish of oatmeal and cream, he would turn from it with a most injured air. To our surprise, he preferred his apples baked and his carrots boiled. Candy he loved dearly, chocolate being his favorite. He would sit up and beg in the most winning way, and if that did not bring the desired titbit, he

would jump into Little Lady's lap and try to take from her fingers the piece she was eating.

In winter, his little house was put into an unused outer room, and when anything displeased him, he would run, and, with an angry *thump*, jump upon the top of it, and sit and sulk like a naughty child.

At Christmas time his tiny tree with its red apple, bright yellow carrot, and gay candies seemed to give him as much pleasure as Little Lady found in hers.



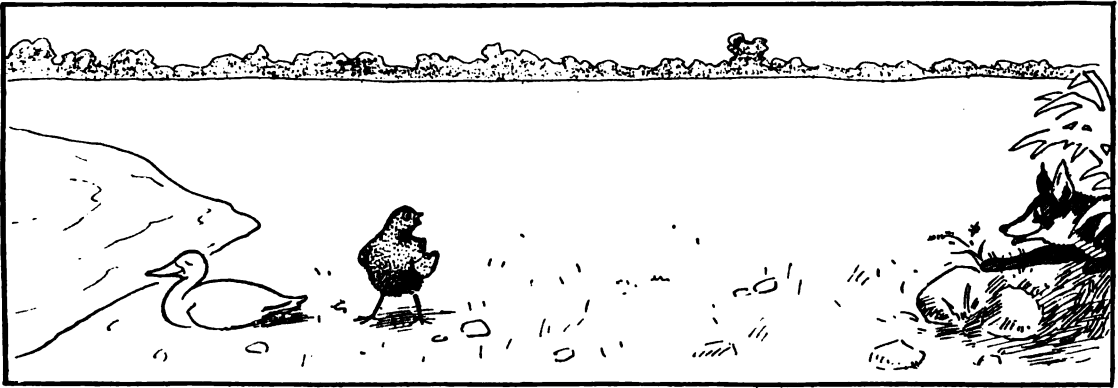
ROBERT'S CHRISTMAS TREE WITH ITS RED APPLE, BRIGHT YELLOW CARROT, AND GAY CANDIES.

Robert was a handsome fellow, much larger than his fellow-bunnies, and gray, like the wild rabbit, with large white spots.

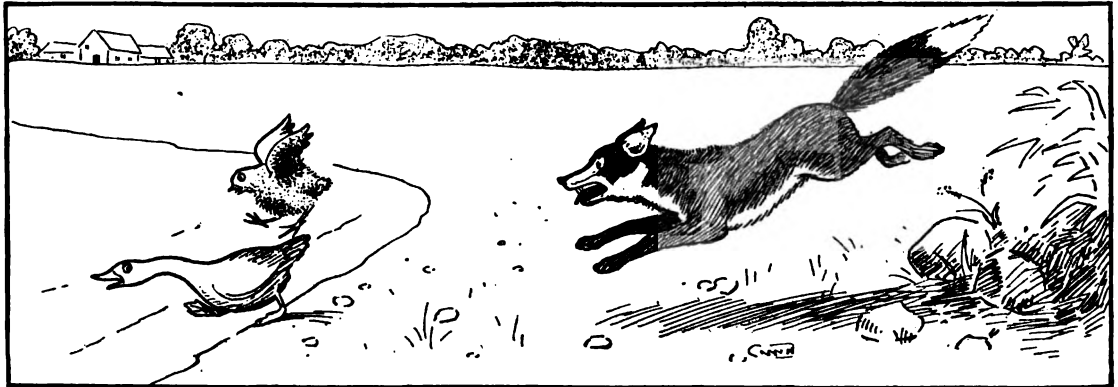
For a year he was the pride and pet of the house; even strangers came to see his amusing tricks. When summer came again, he was put into the summer-house, which had been strongly inclosed with wire. One sad day a hunting-dog, going by, caught sight of him. The dog could not reach him, of course, but this poor Bobby did not know, and he was so frightened that his timid little heart just stopped beating.

But if all the bright and queer and funny things that he did could be told, I am sure you would all agree that he should be called Robert, the Prince of Bunnies.

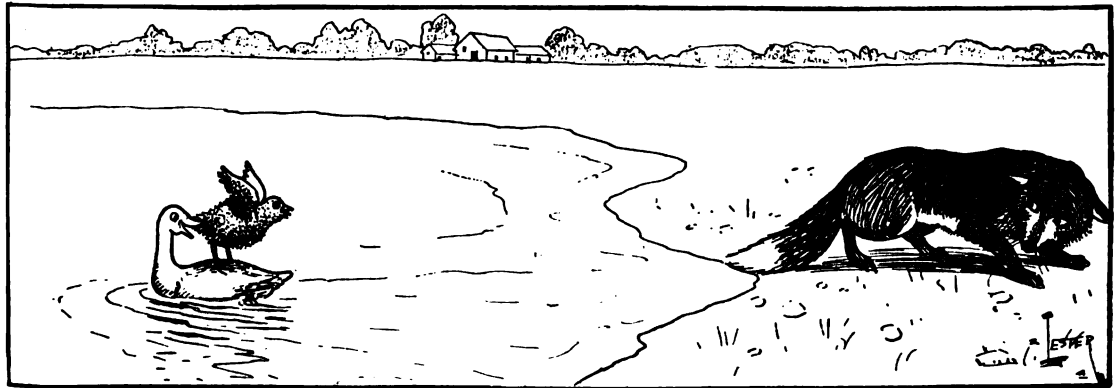
A MORNING ADVENTURE



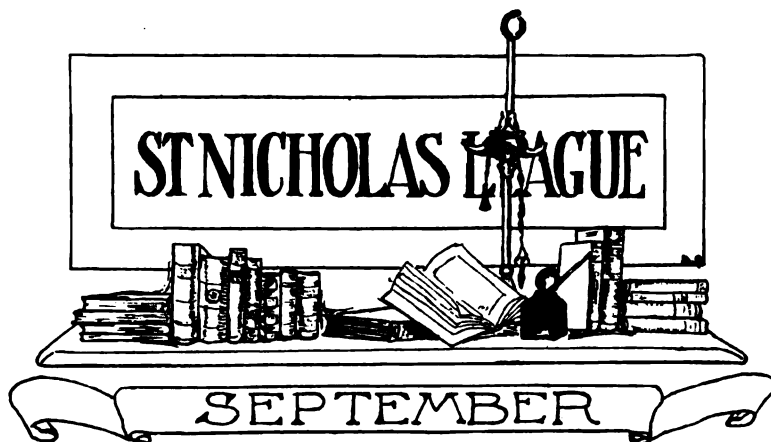
SAID Mr. Fox, "What's this I see?
A breakfast waiting here for me!"



Said Jacky Quack to Dicky Chick,
"We'd better leave—and pretty quick!"



Said Dicky Chick and Jacky Quack,
"Good-by. Don't wait. We'll not be back!"



"A HEADING FOR SEPTEMBER." BY BETTY BOUTELL, AGE 13. (SILVER BADGE.)

THE LEAGUE this month is again indebted to its devoted members for a feast of good things. Our poets have contributed delightful verses, both grave and gay, while we shall all enjoy the clever drawings by the LEAGUE artists and the stories our young prose-writers tell of "What Happened Next." The knights of the camera, too, take high rank. They have admirably covered the subject that, as the long summer holiday is nearing its close, must be uppermost in our minds—"My School." Their photo-

graphs cover a wide range, some showing beautiful, well-equipped buildings, others, the one-room school-house through which so many American boys and girls have passed to useful and happy careers, while still others show that school we all love so well—the great school of out-of-doors where Nature is the teacher. And then there is our beloved LEAGUE, of which one of our Honor Members writes: "If my work shows patience, thoroughness, care, and thought, all this I shall have learned from you."

PRIZE-WINNERS, COMPETITION No. 199

In making the awards, contributors' ages are considered.

PROSE. Gold badges, **Katharine Van R. Holste** (age 17), California; **Martha A. Williams** (age 17), Kentucky. Silver badges, **Eugenia E. Dodd** (age 15), Missouri; **Katharine A. Bryant** (age 13), New York; **Katherine Wallace** (age 13), California.

VERSE. Gold badge, **Agnes Law** (age 14), Colorado. Silver badges, **Margaret Ball** (age 13), South Carolina; **Margaret J. Schmidt** (age 16), Wisconsin.

DRAWINGS. Gold badge, **Virginia Louise Hyams** (age 15), California. Silver badges, **Betty Boutell** (age 13), Massachusetts; **Esther Rice** (age 17), Colorado; **Grace F. Holcomb** (age 14), New York; **Agnes Boberg** (age 11), California; **Laura Marsh** (age 13), Minnesota.

PHOTOGRAPHS. Gold badges, **Helen Page Loudenslager** (age 16), D. C.; **Elizabeth Timpson** (age 14), New Jersey. Silver badges, **Robert Wigglesworth** (age 14), Colorado; **Dorothy Green** (age 13), Michigan; **Alice Good** (age 12), New York.

PUZZLE-MAKING. Gold badge, **Louis Burt** (age 15), New York. Silver badges, **Helen A. Morgan** (age 17), South Carolina; **May McDonough** (age 16), England.

PUZZLE ANSWERS. Gold badges, **Leona Fassett** (age 17), California; **Nancy Hough** (age 11), New York. Silver badges, **J. Esdaile Florance** (age 13), Missouri; **Alan West** (age 14), Pennsylvania.



BY HARRIET MILLER, AGE 11.



BY ROBERT WIGGLESWORTH, AGE 14. (SILVER BADGE.)

"MY SCHOOL."

IN A ROSE GARDEN

BY AGNES LAW (AGE 14)

(Gold Badge. Silver Badge won April, 1916)

I WAS tired of earth's turmoil and sorrow,
Worn out with the care and the strife,
And so wearily sought I to borrow
From the cool fragrant garden new life.

And as 'mong the blossoms I wandered,
"My life is a garden," I thought;
"Each day like a rosebud unfolding,
With thorns for the trials it brought."

And the first flowers I spied were white roses.
"My To-morrows," I thought with a start;
"Each petal a hope that reposes,
Unsuited and pure, in my heart."

"My Yesterdays—the yellow flowers,
With their golden memories fair;
Each petal a record of happy hours
Spent far from earth's toil and care."

"And a crimson bloom is each To-day,
With its glowing, ardent hue.
They are the best, for they do not say
'Shall be,' or 'Has been,' but 'Do!'"

WHAT HAPPENED NEXT

(From the diary of Esther Peters)

BY KATHARINE VAN R. HOLSTE (AGE 17)

(Gold Badge. Silver Badge won September, 1915)

JULY 15, 2016: Aunt Isabel has been telling us about the great war. Nellie and I are most interested. She has finished the story of a terrible battle, and has promised to tell us what happened next to-morrow. I



"MY SCHOOL." BY DOROTHY GREEN, AGE 13. (SILVER BADGE.)

am glad it is vacation; otherwise I should never get my lessons straight thinking about it.

July 17. Yesterday we found what happened next—after the battle. Aunt Isabel told it so beautifully—I wonder if I can remember the exact words:

"Then the nations, bruised and bleeding, bereft of the flower of their men—nations of sorrowing women, helpless cripples, and tiny children—came together, saying: 'We have been insane too long. We are weary of this bloodshed. Let these destructive wars pass away forever! Let us live in peace!'"

"No one disagreed. The war was ended. Before long the International Police was organized and arbitration established. And then—East and West embraced; the nations, like reconciled children, lived in perfect harmony. Art and Science grew apace, and the world became one, bound together by the indissoluble bonds of brotherhood."

We cannot look back, like Esther, and know "what happened next," but we can anticipate "what will happen next." Judging by the tendency of the world to-



"MY SCHOOL." BY HELEN F. LOUDENSLAGER, AGE 16. (GOLD BADGE. SILVER BADGE WON MAY, 1916.)

day, the tendency to love peace, to be charitable toward one's neighbor, to value intellect above riches and love above all, Aunt Isabel's story is quite as reasonable as any other theory.

Let us hope that when 2016 comes some Aunt Isabel will be telling that same story. Let us, in our own little sphere, work for that end. For only through individual love and charity can this great hope be realized.

Mutual kindness and self-sacrifice will soon usher in the era of Universal Peace and unite Humanity in one glorious Brotherhood.

WHAT HAPPENED NEXT

BY EUGENIA E. DODD (AGE 15)

(Silver Badge)

HE was a little boy just four years old. His name was Tommy—that is, he was called Tommy. He was christened Thomas Theodore, but that was such a mouthful that it was easier to say Tommy. However, we had a special nickname for him which we used just within the family. How he came by the name happened in this way:

Tommy was desperately fond of stories. The whole family had to take turns telling them to him: Bible stories, fairy stories, animal stories, true stories, impossible ones, any kind, every kind—just so it was a story. We told him every story he had ever heard or read. When we had told all these some hundred odd times, we began to invent them.

Every single night Tommy had to be told a story before he would go to sleep. He usually insisted on having me tell the story—I don't know why. I purposely told the poorest ones I could think of, yet he persisted.

He would climb into bed, and I would sit down beside him and begin with a three-legged giant, a bear or two, or an old witch. Presently his eyes would close, and my voice would become softer; and when I thought he was asleep, I would stop. The bears were frequently

left fighting a fearful battle with the giant. I never thought it worth while to finish the story since Tommy was no longer awake. I would tiptoe to the door so as not to disturb him; but quick as a flash Tommy would sit bolt upright, wide awake, and demand, "What happened next?"

Then I would be compelled to start all over again. After this had happened time after time we nicknamed him "What Happened Next?"



"A HEADING FOR SEPTEMBER." BY ESTHER RICE, AGE 17.
(SILVER BADGE.)

WHAT HAPPENED NEXT

BY MARTHA A. WILLIAMS (AGE 17)

(Gold Badge. Silver Badge won August, 1916)

THE room in Greenwich palace was warm and close one midsummer's day where a group of pages stood talking rather loudly.

"Thou canst not catch yon buzzing fly, Gilbert!" cried a fat lad in a murrey-colored doublet.

"Can, too!" answered a curly-haired little fellow; "I 'll show thee in a twinkling!"

Flap, flap—the end of Gilbert's cloak followed the elusive fly. Flap—flap—then *crash!* as a jeweled box fell to the floor and shivered into fragments.

"Gilbert!" cried the boys, aghast.

"Oh!" gasped the little fellow; "can it be mended?"



"MY SCHOOL." BY WENDELL KEENEY, AGE 12.

"Nay, 't is in a thousand pieces!"—"Methinks her majesty prized it highly!"—"Aye, 't was given her by the Duke d'Alençon!"—came in chorus from the frightened pages.

"Whatever shall I do!" sobbed the little fellow, when suddenly all became still as the door opened and a silent figure stood in the room.

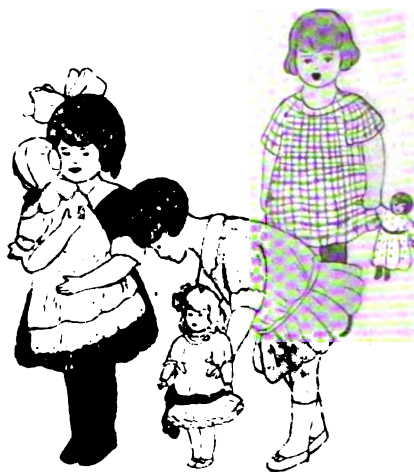
"'Sh-h! 't is Queen Elizabeth!" whispered a tall page to shaking little Gilbert.

The queen spoke sharply. "Wherefore was all this noise?" she queried, glancing over the room. Before any could answer, however, she spied the shattered box. "Ah," she cried, biting her lips, "who hath done this?"

Gilbert gasped and murmured something unintelligible.

"The culprit shall be flogged roundly," said the queen, and the punishment would have fallen upon little Gilbert had it not been for—what happened next. The tall page stepped to the front and spoke: "Please, Your Majesty, I taunted him—I might as well have pushed young Gilbert's hand. Punish me."

Then the queen's eyes brightened, for she loved bravery above all things. "Nay, lads," she said, in a softer voice, "'t was an accident, and no one shall be flogged." And as the boys crowded around the tall lad, good Queen Bess passed from the room smiling.



"ADMIRATION." BY GRACE F. HOLCOMB, AGE 14.
(SILVER BADGE.)

FRIENDSHIP

(To My Twin Sister!)

BY MARGARET BALL (AGE 13)

(Silver Badge)

I HAVE a darling little friend,
She 's twelve years old to-day;
And how I love this little friend
Is more than I can say.

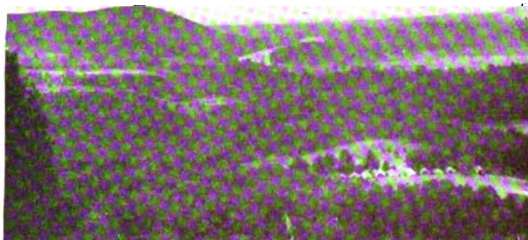
I have a little enemy,—
She 's also twelve to-day;
And with this little enemy
I fight c'en when I play.

Folks say this enemy and friend
Are like as like can be;
But I know well the little "friend"
Is sweeter far to me!

And who this friend and en'my are
I promise to tell true—
The little "enemy" is "me,"
The little "friend" is you!



BY HERBERT L. PRATT, AGE 15.



BY RUTH BRINDZE, AGE 12.



BY BELLE MITCHELL, AGE 14.



BY AMY LEWIS, AGE 14.



BY ALICE GOOD, AGE 12. (SILVER BADGE.)



BY KATHRYN ROHNERT, AGE 13.



BY LUCY POMEROV, AGE 15. (HONOR MEMBER.)



BY PEGGY GANTT, AGE 15.

"MY SCHOOL."

IN A ROSE GARDEN

BY MARGARET J. SCHMIDT (AGE 16)

(Silver Badge)

SOFTEST tints and misty sheen,
'Gainst the leaves of darkest green;
Sweetest perfume fills the air,
Roses, roses everywhere.

Humming-birds of rainbow hue,
'Neath a sky of sapphire blue,
Flitting swiftly here and there,
Sipping from the roses fair.

Balmy breezes passing by
Waft the petals far and nigh;
Fragrance sweet and colors rare,
Roses, roses everywhere.

WHAT HAPPENED NEXT

BY KATHARINE A. BRYANT (AGE 13)

(Silver Badge)

THERE was great anticipation at home, one cold winter night, because Father, who had been called away, was returning. It was snowing hard. We children had been sent to bed, and Mother was sitting by the fire. The snow came tearing down the chimney with the wind, and the ash of the soft cannel-coal was blown

expected at about nine. As the clock struck, Mother anxiously peered out of the window, but could see almost nothing because of the wet sleet which covered it. She ventured to open the door to peer down the street in hope of seeing at least the automobile lamps, but a giant gust of wind nearly blew her off her feet as it swept through the hall, blowing out the lamp with a mighty breath, slamming doors, and scattering newspa-



"MY SCHOOL." BY ELIZABETH W. GRAVES, AGE 17.
(HONOR MEMBER.)



"ADMIRATION." BY DOROTHY E. HAUKSAKER, AGE 17.
(HONOR MEMBER.)

toward the middle of the room. As the storm grew fiercer, Mother began to worry lest Father should not be able to get home that night.

However, at half past eight she told Anna to put the coffee on and start things getting hot, as Father was

pers in every direction. Mother tried to be calm, and settled down with the intention of making herself read; but the wind rose to a shriek and the house seemed to sway. Upstairs my brother and sister slept peacefully, but I was so frightened by the howls of the wind that I could not get to sleep. Suddenly, with a terrific crash, our chimney toppled over! Flames leapt out into the darkness. My room was illumined with the light. Before the fire-alarm was rung the roof was a mass of flames. Just as I hurried into some clothes, Mother came rushing upstairs. After waking Elise and little Joe I helped Mother bundle a few valuables into pillow-cases. With shivers, both from cold and fright, we four and Anna the cook ran out of doors—to be met with a spray from the hose which the firemen were applying. The next thing that happened was that an automobile tore up the road, a muffled man clambered out, and with a cry of "Father!" we dropped our responsibility on his shoulders.

IN A ROSE GARDEN

BY JESSIE MARILLA THOMPSON (AGE 14)

(Honor Member)

A LITTLE child with wistful eyes
Stood gazing at the sunset skies.
The warm light touched her golden hair,
Caressed her cheek, all pink and fair.
She watched the sunset in the sky,
And murmured, with a little sigh,
"Those wondrous tints of rose and gold
Would I might in my hands enfold!"
I smiled. "See, dearest one," I said,
"Before you in this garden bed
Are roses red and pink and gold—
All sunset shades—that you may hold.
More—with their color, fragrance sweet
Combines." With swiftly running feet,
The child into the garden went,
And lingered in a glad content;
Returning, by my side she stands—
"See, see! the sunset in my hands!"

IN A ROSE GARDEN

BY ELISABETH M. DUKES (AGE 14)

(Honor Member)

FORGOTTEN garden, grass-grown paths, charred ruins
open to the sky:—
Speak, tangled rose, and tell to me a legend of your
Italy!

There was an apple-bough against the sky, with olive
leaves like glossy, polished jade.
There was a ray of sunlight, mellow gold, and in the
tree a laughing dryad maid.
Late afternoon—with vivid golden light her long hair
shimmered in the slanting sun,
And, as the light wind stirred the little curls, the sun-
ray and the lock of hair seemed one!
Then through the wood Apollo wandering came, lyre
in hand and murmuring melodies;
And as he went, with his mysterious power he held
converse with winds and brooks and trees.
He saw the dryad and her radiant veil; his dreamy
face lit with a swift delight.
“Ah, loveliest daughter of the golden morn, where is
thy beauty in the sunless night?”
And as a snowflake, in some sudden heat, shrinks into
mist and melts into the air,
So her gay laughter, like a bubble blown, vanished,
and left her at his feet in prayer.
“Weep not, thou lovely one!” Apollo cried. “Nay, thou
shalt glad far more than one weak god!”
And lo! before him grew a daffodil, changed from the
sun-maid at his gentle nod.

WHAT HAPPENED NEXT

BY KATHERINE WALLACE (AGE 13)

(Silver Badge)

ONCE when I was staying with my friends the Dal-
tons, Mrs. Dalton and her sister Miss Craig went shop-
ping. Marie and I were instructed not to go to the
front door if the door-bell rang, but to go out of the
side door and see who it was. Then we should let them
in if we thought best.



“MY SCHOOL.” BY MARION FICHTHORN, AGE 12.

While they were gone we told such thrilling ghost
stories that we were having many spinal chills.
“When suddenly from behind,” Marie continued in
an awful whisper, “icy fingers seized her and—”
“Oh! what happened next?” I cried aloud.
“‘Sh-h!’” Marie cautioned. “I hear footsteps on the
front porch!”
At which news my teeth began to chatter.

Brr! Brr! The door-bell rang! Silence prevailed—
then Marie spoke.

“We must go around by the side door!”

“Oh, no! please don’t, after all those stories! And
anyhow,” a brilliant idea had come to me, “we can’t
get across the hall to the side door without the person
at the front door seeing us, although we could n’t see
him.”

For a moment this perplexed Marie. Then she whis-
pered:

“Maybe we could crawl on the floor without attract-
ing notice.”

“A HEADING FOR SEPTEMBER.” BY AGNES BOBERG, AGE 11.
(SILVER BADGE.)

The thought pleased Marie as much as it appalled
me. But I would n’t stay behind.

We crawled to the side door and regained our feet.
Marie reached out her hand to turn the knob when lo!
the knob turned as if by itself!

Slowly, persistently, it turned. Marie was petrified,
and so was I.

There was a pause.

Then, around the corner of the door a black finger
appeared! then another—and another, until a whole
hand was in view!

Speechless we watched the hand move. Then—

What do you think happened next?

Mrs. Dalton stood before us, calmly smiling.

FRIENDSHIP

BY HOLLY F. WILCOX (AGE 12)

FROM school one night wee Janice sped
Into the wood all flaming red.
I wondered where she sped so fast.
Her mates dallied long to play,
And I followed by the bushes
That lined the woodland way.

She stopped before a massive oak,
And knelt, her checkered bonnet doffed,
And whistled thrice, clear and sweet,
But cautiously low and soft.

Presently two bright eyes appeared,
And then her anxious visage cleared.
“Ah, Graytop! I’ve your luncheon ready;
Come down,” she whispered soft.
And down sped the busy bunch of fur,
Tail waving high aloft.

He cuddled there upon her arm,
And to my throat a lump arose unbidden.
Snap! and the screening branch had broke
Where I watched hidden!

The squirrel leaped in a fright away,
She turned with a tear-filled eye:
“Please don’t tell our secret, sir;
We’re friends, Graytop and I.”

IN A ROSE GARDEN

BY ALICE F. LEVY (AGE 12)

"HELLO!" said Billy Rose-bug
To the rose-bug overhead;
"Come down to chat with me awhile—
Or I'll come up instead."

They soon were settled comfortably
Upon a rosebud pink,
The conversation interesting
Did follow thus, I think:

"What a lot of tender rosebuds
We've had to eat this year!
They've been so sweet and tasty
We ate too much, I fear."

"Do you know what they're sprinkling
On the roses 'cross the way?
I sent Brown Dot to find out,
And I've waited all the day;

"But he has n't come to tell me.
I think 't was awful' mean!"
"I've heard," replied Miss Ladybug,
"Men call it Paris green."

It sounded very sporty;
They thought they'd try it, too.
They flew to the red roses—
And the rest I'll leave to you!



"MY SCHOOL." BY ELIZABETH TIMPSON, AGE 14. (GOLD BADGE. SILVER BADGE WON JULY, 1916.)

WHAT HAPPENED NEXT

BY MARIAN B. MISHLER (AGE 16)

It was early morning, and I was walking over the still meadow, when suddenly I spied something on the ground—a wee shining something.

"A fairy's wishing-ring!" I cried. And sure enough! 'T was just big enough to fit on the very tip of my tiniest finger.

"I wish I might see the fairies," I whispered as I turned it round and round.

Whirr—swish! There I was sitting in the midst of a great pink bundle of an apple-tree. 'T was moonlight, and the wee people were dancing on the silvery green-sward beneath me. On a bank of violets sat the queen in a misty frock of starshine. I dared not move, but I looked long

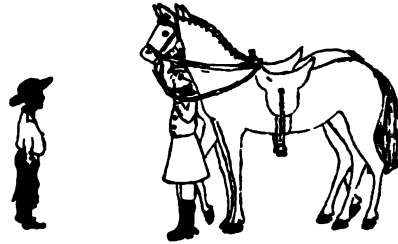
And then I turned my ring once more.

"I want a bubble that will not break," I breathed.
Now I was on the shore of a great ocean, and the little blue waves were smiling up to the sun. There it floated, a big, shining, many colored thing, just beyond my reach. But I caught it, and I laughed. For that is what it gave me—Romance, and a love for the Bright Things in Life.

And now for the last time I turned the ring.

"Show me the right way," I begged.

Before me lay two roads. Down one came children



"ADMIRATION." BY CATHERINE BARTOW, AGE 11.

running and singing, and after them bigger people running and singing. Down the other came children slower—and slower—and then old people with scowling faces and wise looks.

I stretched out my arms longingly toward the first road. They all looked so happy on it! But suddenly both vanished—and there I was in the meadow again, with the birds singing. What would have happened next if that robin had n't wakened me?

THE ROLL OF HONOR

No. 1. A list of those whose work would have been used had space permitted.

No. 2. A list of those whose work entitles them to encouragement.

PROSE, 1	Gertrude	Frances C. Gavit
Ruth Gardner	Zimmerman	Hannah Ratisher
Alma M. Hopkins	Marjorie Wilson	Margaret Manning
Walter Hanlon	Anna Badian	Samuel B.
Samuel Hacker	Zora Brotherton	Fostenburg, Jr.
Dorothy H. Leach	Louise Boyd	Dorothy B. Smith
Frances E. Johnson	Margaret L. Winkle	Margaret Klein
Helen J. Davis	Anna S. Richter	
Alice P. Allen	Madeline Canlett	
Phyllis K. Katt	Elizabeth A.	
Ottalie Kroehler	Robinson	
Mary S. McMahon	Elizabeth B. Rider	
Janet Scott	Gertrude Nelson	
Mary L. Canty	Edmund Freund	
	Eleanor C. Ripley	



"ADMIRATION." BY VIRGINIA L. HYAMS, AGE 15. (GOLD BADGE. SILVER BADGE WON JAN., 1915.)

Jean F. Black	Eleanor M.	Caroline Pugh
Gertrude Goodman	Rosenthal	Elizabeth Bettman
Helen R. Spencer	Hazel Shireman	Jessie Gregg
Elizabeth C. Gay	Barbara Haines	Inge Antonissen
Mary Stanford	Frances Segner	Marcia Gale
E. Frances Jennings	Sarah Falk	Joseph M. Watson

Mary P. Foster
Mary Pierce
Margaret Caton
Irene Shlivck
Elizabeth M. Abbott

Genevra Ducro
Agnes MacDonald
Esther J. Lowell
Katherine E. Yager
Elizabeth Cluverius
Betty Thomas

Harry Bonath
Anna Babcock
Albertine James
Eleanor Leech
Catherine L. Spencer

Elizabeth B. Jacobs
Kathryn Le B.
Drury
Sherwood Johnston
Dorothy Carlton
Rebecca Luther
Vera Tanner
Elizabeth McLaren
Angela M. Smith
Elizabeth Hamilton

Kathleen L.
Campbell
Anna Pratt

PUZZLES, 2

John Irwin, Jr.
Cecelia McIntire
Dorothy R.
Oppenheim

Elizabeth Wright
Fannie Nechamkin
Mildred Bernheim
Waller A. Davis
Elizabeth Osborne
Sherwood Johnston
Shirley P. White
Katharine H.
Beeman
Katharine B. Buel

VERSE, 1

Rebecca T. Farnham
Sarah F. Borock

DRAWINGS, 1

Ingeborg Anderson

PHOTOGRAPHS, 1

Marian G. Howard
Elliot D. Pratt
Katherine O'Rielly
Katherine Welsh
William D. Barbour
Gertrude Hooper
Elizabeth Botsford
Betty Lowe
Margareta Martini
Adeline de V.
Kendall
Robert H.
Winchester
Phyllis Young
Erminie B. Wheeler
Malvina K.
Holcombe
Bradley Fuller
Anna R. Payne
Sterling Dow
Edwin N. Durland
Margaret Keyes
Florence
Nightengale
Alfred Romer, II
Elizabeth Fullington

PHOTOGRAPHS, 2

Jessie Joslin
Katherine G. Batts
Whitney Ashbridge
Anna Russell

PUZZLES, 1

Elizabeth T. Sellers
Matthew Jasner
Katharine Brooks
James A. Miller
Elizabeth A. Harris
Richard S. Angell
Elizabeth W.
Austin
Florence White
Margaret McEntee
Albert W. Simpson
Florence Noble
Joe Earnest
Nancy Hough
Richard S. Angell



"ADMIRATION." BY PHILIP TAFT ELLIOT,
AGE 16.

Doris R. Wilder
May E. Wishart
Anna Lincoln
Ann E. Sheble
Katherine Hunn
Ruth Akerman
Richard L. Purdy
Dorothy Willett
Ruth Porter
Crawford
Ruth Barcher
Edith Sampson
Marian Hopkins
Ada M. Hand
Mabelle H. Emory
Edith V. M.

J. Asher
Edith Londry
Katherine Holton
Pauline E. Dikeman
Nelson W. Prentiss
Frances H. Lenz
Arthur Holt Palmer
Edith Dempsey
Lucie C. Holt
H. Martyn
Kneeder, Jr.
G. Perry Githens
Harriet Fargo
Charlotte Becker
Louise Child
Ellen M. Faint

Simmonds, II
Virginia Traylor
Hulda Howard
Kate M. Cox
C. Rosalind Holmes
Mary E. Brice
Marjorie Dahut
Mary Lockett
Ruth Chandler
Harriet T. Parsons
Dahris B. Martin
Mary R. Nelson
Marian Anspacker
Marion D. Gutman
Louise Jackson
Florence E. Wallace
Thomas Kittrell
Barbara Prosser
Margaret

Mackprang
Vivian W. Greene
Eleanor Slater
Beatrice Lowenthal
Elliot R. Chapman
Louise P. Lynch
Harriet S. Bailey
Eleanor Sawyer
Alice Dunham
Catherine
Parmenter
Dorothy Marshall
Sydney Archbell
Mary E. James
Marian House
Gertrude Allison
Christina Phelps



"ADMIRATION." BY LAURA MARSH,
AGE 13. (SILVER BADGE.)

Catharine Bradley
Antoinette Srajn
Mary E. Herr
Doris Flather
Mary R. Evans
Helen M. Chase

DRAWINGS, 2

Rosamond Thomas

Muriel Winston
John Levy
Eleanor Deland
Thomas O. Carlson
John A. Hall
Elizabeth D. Foster
Rebecca Cooley
Lavinia Skeer
Hayden Smith
Florence Palmer

PRIZE COMPETITION No. 203

THE ST. NICHOLAS LEAGUE awards gold and silver badges each month for the best *original* poems, stories, drawings, photographs, puzzles, and puzzle answers. Also, occasionally, cash prizes to Honor Members, when the contribution printed is of unusual merit.

Competition No. 203 will close **September 24** (for foreign members **September 30**). Prize announcements will be made and the selected contributions published in ST. NICHOLAS for **January**.

Verse. To contain not more than twenty-four lines. Subject, "The Turn of the Road."

Prose. Essay or story of not more than three hundred words. Subject, "My Hero."

Photograph. Any size, mounted or unmounted; no blue-prints or negatives. Subject, "Coming Home."

Drawing. India ink, very black writing-ink, or wash. Subject, "Practising," or "Ready," or a Heading for **January**.

Puzzle. Any sort, but must be accompanied by the answer in full, and must be indorsed.

Puzzle Answers. Best, neatest, and most complete set of answers to puzzles in this issue of ST. NICHOLAS. Must be indorsed and must be addressed as explained on the first page of THE RIDDLE-BOX.

Wild Creature Photography. To encourage the pursuing of game with a camera instead of with a gun. The prizes in the "Wild Creature Photography" competition shall be in four classes, as follows: *Prize, Class A*, a gold badge and three dollars. *Prize, Class B*, a gold badge and one dollar. *Prize, Class C*, a gold badge. *Prize, Class D*, a silver badge. But prize-winners in this competition (as in all the other competitions) will not receive a second gold or silver badge. Photographs must not be of "protected" game, as in zoological gardens or game reservations. Contributors must state in a *few words* where and under what circumstances the photograph was taken.

No unused contribution can be returned *unless it is accompanied by a self-addressed and stamped envelop of the proper size to hold the manuscript, drawing, or photograph.*

RULES

ANY reader of ST. NICHOLAS, whether a subscriber or not, is entitled to League membership, and a League badge and leaflet, which will be sent free. No League member who has reached the age of eighteen years may compete.

Every contribution, of whatever kind, *must* bear the name, age, and address of the sender, and be indorsed as "original" by parent, teacher, or guardian, *who must be convinced beyond doubt—and must state in writing—that the contribution is not copied*, but wholly the work and idea of the sender. If prose, the number of words should also be added. These notes must not be on a separate sheet, but on the contribution itself—if manuscript, on the upper margin; if a picture, on the margin or back. Write or draw on *one side of the paper only*. A contributor may send but one contribution a month—not one of each kind, but one only; this, however, does not include the "advertising competition" (see advertising pages) or "Answers to Puzzles."

Address: **The St. Nicholas League,**
353 Fourth Avenue, New York.

THE LETTER-BOX

EVELETH, MINN.

DEAR ST. NICHOLAS: My mother took you when she was a little girl, and loved you so very much that I am taking you now. Do I love you? Well, if you knew how impatiently I wait and wait until your arrival, you would know!

I love *all* your stories, especially "The Lass of Richmond Hill" and "The Boarded-up House," which was *very* interesting. I wish Augusta Huiell Seaman would put another of her delightful stories in. They're *so* thrilling! I think I will have you bound for my children and grandchildren to read from cover to cover, as I do.

Hoping you will always be successful,
MARGARET E. MORE (age 13).

DALLAS, TEX.

DEAR ST. NICHOLAS: I have taken you for nearly two years, and think you are fine. I have never seen a letter from here.

I suppose some of you people up there think Mexico is just a few blocks away, but it is far away from us.

Even if I did live five years in New York State and five in Texas, I like it best in Texas.

We live only a few blocks from a creek, and beyond that is a hill, and about three hundred miles beyond that is the Gulf of Mexico.

I am very fond of reading so I guess that is one reason why my aunt sent you to me, for ST. NICHOLAS is full of interesting things to read.

I must close.

Yours truly,
RICHARD B. WILLIS (age 10).

SATICOV, CAL.

DEAR ST. NICHOLAS: I am writing to tell you how much I like your book.

I live on a big ranch with Mother and Daddy, and Missie, my governess, and Tong the cook. Peter, Patsy, and Fritzie are my dogs, and they take care of the house.

I have also a pony named Dolly and a goat, and sometimes when Mother goes for a ride on her horse, Booster, I go with her on Dolly, and it's such fun.

I have lessons every morning, and in the afternoon Missie and I go to see the little pigs on Daddy's farm, and watch the mice run in and out of the corn in the barn.

At half past six I go to bed, and I always take my dolly Susanne with me.

I cannot write any more now, but I will write again soon.

Your loving little reader,
MARY LOUISE EDWARDS (age 6).

RED BANK, N. J.

DEAR, DEAR ST. NICHOLAS: This is the first letter I have ever written to you, for I have only taken you since Christmas, nineteen hundred and fifteen, but I am sure I love you better than many of your readers who have taken you longer than I. You are the dearest thing. I beg your pardon, you are *not* a "thing"; you are a playmate, for you see, dear ST. NICHOLAS, I am the only child, and consequently I am sometimes very lonely. I take you out and forget all about being lonely, for I have such a lovely time with you.

Father, when he was a boy, took you for several

years, and he had his numbers bound. I am not going to, though, for I cannot bear to lose even the advertisements as I would then have to do.

I love the LEAGUE, and, though I have never gotten a prize, I am going to "try, try again." The advertising competitions, too, are extremely interesting, and in those I have also tried my luck.

I have often read in THE LETTER-BOX that in large families they sometimes have quarrels over who shall have you first. Well, although I have no brother or sister, I often have to take you and run, for there are times when Mother and Father get so interested in a story they cannot wait for next month's to come.

I love every one of the stories in you. I joined too late to read "Peg o' the Ring" and "The Lost Prince," but it happened that last Christmas I received both of them, as well as "Beatrice of Denewood" and "The Lucky Sixpence." "The Pride of the Beresfords" was great, as, indeed, all of your stories are.

This is a rather long letter, so I close after adding another "World of Love" to you, you *dear* friend. Good-by.

VIRGINIA GRATTAN.

MARTHA'S VINEYARD, MASS.

DEAR ST. NICHOLAS: I am having a fine time this summer. I go in swimming every day. There is a dandy float about one hundred yards from shore. It has two spring-boards, one four feet from the water, the other ten feet. Then there is a plain seven-foot dive and a shoot. I've been off all the heights except the ten-footer. But when my father comes, I am going to jump off of it. The shoot looks a great deal worse than it really is. This is a poem I made up about it:

I like to swim,
I like to dive,
I like to shoot the shoot;
But the latter is
Especially bad
For the front of your bathing-suit.

We have a sail-boat, or, rather, a sloop, *The Albertine*, and a rowboat, *The Bubble*.

With lots and lots of love for you and your stories, I am

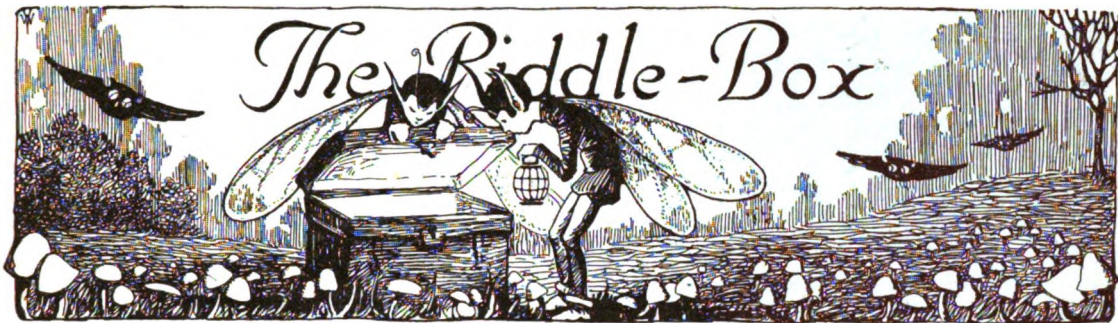
Your faithful reader,
MARY LOCKETT (age 12).

BALTIMORE, MD.

DEAR ST. NICHOLAS: I have been taking you for a year, but this is the first time I have written. I take very good care of each number, and, when I have finished reading it, send you to a girl in Virginia. Mother and Father both took you when they were little, and my seventeen-year-old brother reads you every month. I adore your stories, but best of all "The Sapphire Signet." I could not get on without you, and wish all little children could have you.

I am your devoted reader,
NANCY DOUGLAS MITCHELL (age 9).

THE third and final instalment of Mrs. Jackson's delightful story "Silverheels" will appear in ST. NICHOLAS for October, instead of being completed in two numbers as announced.



ANSWERS TO PUZZLES IN THE AUGUST NUMBER.

MIXED WORD-SQUARE. 1. Cave 2. Aged. 3. Vend. 4. Eddy.
A "FIRST LINE" PUZZLE. Longfellow. 1. "Lady Wentworth."
2. "Oliver Basselin." 3. "Nuremberg." 4. "Caspar Becerra." 5.
"Flowers." 6. "Excelsior." 7. "L'Envoi." 8. "Loss and Gain."
9. "Old St. David's at Radnor." 10. "Woodstock Park."

CROSS-WORD ENIGMA. Constantinople.

A DOUBLE-POINT PUZZLE. Reading across: 1. C. 2. Pal. 3. Cadet. 4. Harmonious. 5. Noose. 6. Bat. 7. N. Downward: 1. H. 2. An. 3. Rob. 4. Moan. 5. Cost. 6. Pane. 7. Cadi. 8. Leo. 9. Tu(ne). 10. S.

ILLUSTRATED NUMERICAL ENIGMA. "In a false quarrel there is no true valor."

TRIPLER ACROSTIC. From 1 to 2, Lowell; 3 to 4, Milton; 5 to 6, Dryden. Cross-words: 1. Limered. 2. Osier. 3. Willy. 4. Ectad. 5. Loose. 6. Linen.

DIAGONAL. Tennyson. Cross-words: 1. Twilight. 2. Regulate. 3. Panorama. 4. Meantime. 5. Dandyism. 6. Relapsed. 7. Division. 8. Relation.

SOLVERS wishing to compete for prizes must give answers in full, following the plan of the above-printed answers to puzzles.

TO OUR PUZZLERS: Answers to be acknowledged in the magazine must be received not later than the 24th of each month, and should be addressed to ST. NICHOLAS Riddle-box, care of THE CENTURY Co., 353 Fourth Avenue, New York City.

ANSWERS TO ALL THE PUZZLES IN THE JUNE NUMBER were received before June 24 from J. Esdaile Florence—Alan West—Leona Fassett—Nancy Hough—Elaine Blackman—Florence Helwig—Katharine H. White—Alice Foulin—Angeline Garrison—Helen Adda Vance—Janetta W. Schoonover—Margaret McEntee—John Stockton Littell—Helen A. Moulton—Marjorie M. Lounsbury—Elizabeth Lee Young—"Midwood"—Whitney Ashbridge—Florence M. Carter—Helen McMahon—Janet Rankin—Walter Keeble Smith, Jr.—"Amok Temgon"—Malcolm D. Brown—"Ste. Anna's Girls."

ANSWERS TO PUZZLES IN THE JUNE NUMBER were received before June 24 from Constance Miller, 8—Claire A. Hepner, 8—John H. Levy, 8—Helen McIver, 8—Brayton Blake, 8—Eleanor C. Swift, 8—Louise Durand, 8—Janet B. Fine, 8—Dorothy Berrall, 8—Florence Noble, 7—Barbara Potter, 6—A. Eugene Griffin, Jr., 5—Henrietta Boek, 3—Helen K. Morley, 3—Paula T. Siedenburg, 3—H. F. Gould, 1—A. Lamson, 1—B. Grosflam, 1—E. Harris, 1—M. Lewis, 1—R. W. Brown, 1—L. M. Saul, 1—C. Barber, 1—B. Rogers, 1—M. E. Longworth, 1—G. Wrenn, 1.

TRANSPPOSITIONS

1. **TRANSPOSE** to give out in small portions, and make a vein of metallic ore. 2. Transpose the god of war, and make weapons. 3. Transpose a young animal, and make a soothing application. 4. Transpose a famous city, and make a Hebrew measure. 5. Transpose soft, wet earth, and make hoar-frost. 6. Transpose to guard, and make a small hollow. 7. Transpose to transmit, and make certain poisonous serpents. 8. Transpose to bend, and make deviates from a course.

When the foregoing transpositions have been rightly made, the initials of the new words will form two common little words.

"CHUMS."

CHARADE

My first, a tree, doth bear a cone;

My second is to plow;

My whole is land, I trow,

A thrifty farmer loves to own.

NANCY HOUGH (age 11), *League Member*.

A CLASSICAL DIAGONAL

(Silver Badge, St. Nicholas League Competition)

ALL the names to be guessed contain the same number of letters. When rightly selected and written one below another in the order given, the diagonal, from the upper left-hand letter to the lower right-hand letter, will spell

GEOGRAPHICAL ZIGZAG. Gibraltar. 1. Genoa. 2. Niger. 3. Tibet. 4. Cairo. 5. Volga. 6. Chile. 7. Butte. 8. Maine. 9. Rhine.

A DIAMOND OF DIAMONDS. 1. 1. C. 2. Cod. 3. Codes. 4. Den. 5. S. 11. 1. C. 2. Sad. 3. Cares. 4. Dew. 5. S. 111. 1. S. 2. Nan. 3. Sasin. 4. Nil. 5. N. IV. 1. S. 2. Wan. 3. Satin. 4. Nib. 5. N.

NOVEL DOUBLE ACROSTIC. Initials, George Eliot; third row, "Silas Marner." Cross-words: 1. Gusto. 2. Edify. 3. Oiler. 4. React. 5. Gusts. 6. Emmet. 7. Elate. 8. Large. 9. Inner. 10. Opens. 11. Tarts.

CONNECTED SQUARES. I. 1. Floss. 2. Lithe. 3. Other. 4. Sheaf. 5. Serfs. 11. 1. Heart. 2. Elder. 3. Adieu. 4. Reels. 5. Trust. 111. 1. Table. 2. Atlas. 3. Blurs. 4. Larva. 5. Essay. IV. 1. Start. 2. Tapir. 3. Apple. 4. Rills. 5. Tress. V. 1. Taste. 2. Abhor. 3. Shine. 4. Tonic. 5. Erect. VI. 1. Feast. 2. Eagle. 3. Agree. 4. Sleet. 5. Teeth. VII. 1. Sable. 2. April. 3. Breed. 4. Liege. 5. Elder. VIII. 1. Toast. 2. Order. 3. Adore. 4. Serve. 5. Treed.

the name of a famous Athenian tragic poet. He is supposed to have been born on the day the battle of Salamis was fought.

CROSS-WORDS: 1. A celebrated Stoic philosopher. 2. A Roman poet, born about 96 B.C. 3. A sacred mountain in Greece. 4. The mother of Caligula. 5. A queen of Egypt. 6. A Theban general, the friend of Epaminondas. 7. A king of Macedon. 8. The birthplace of Plutarch. 9. "The Father of History."

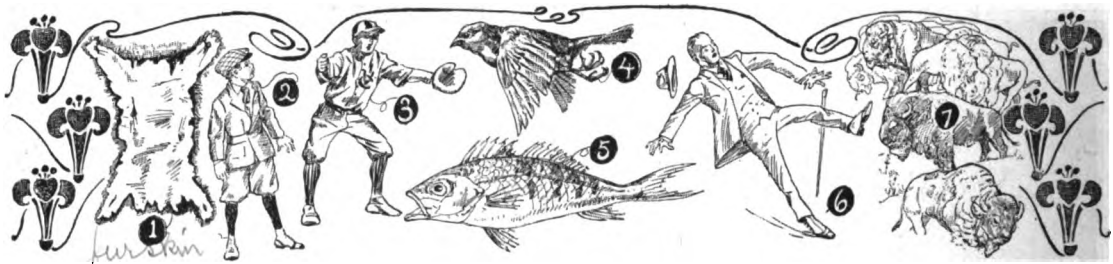
MARY McDONOUGH (age 16).

METAMORPHOSES

THE problem is to change one given word to another by altering one letter at a time, each alteration making a new word, the number of letters being always the same and the letters always in the same order. Example: Change *wood* to *coal* in three moves. Answer: wood, wool, cool, coal.

1. Change *tack* to *nail* in four moves.
2. Change *tear* to *mend* in four moves.
3. Change *mean* to *kind* in five moves.
4. Change *bait* to *fish* in four moves.
5. Change *bird* to *mole* in six moves.
6. Change *land* to *lake* in two moves.
7. Change *hate* to *like* in three moves.
8. Change *rise* to *fall* in six moves.

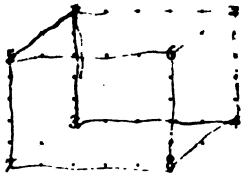
CHARLES A. HOWARD, JR. (age 11), *League Member*.



ILLUSTRATED PREFIX PUZZLE

To each of the seven objects in the above picture may be prefixed a common little noun of three letters. When the prefix is added, what are the seven words?

CUBE



FROM 1 to 2, a domestic fowl; from 1 to 3, animal fat; from 2 to 4, to divide into branches; from 3 to 4, a number; from 5 to 6, proper; from 5 to 7, a foot-covering; from 6 to 8, pleasure boats; from 7 to 8, quits; from 1 to 5, an illuminating fluid; from 2 to 6, a beam; from 4 to 8, an affirmative; from 3 to 7, a fish.

PHYLLIS YOUNG (age 16), *League Member*.

DOUBLE BEHEADINGS AND DOUBLE CURTAILINGS

(*Silver Badge*, St. Nicholas League Competition)

1. DOUBLY behead and doubly curtail distracted, and leave an emmet. 2. Doubly behead and doubly curtail pledged, and leave to stop the mouth. 3. Doubly behead and doubly curtail winked, and leave a black fluid. 4. Doubly behead and doubly curtail restored, and leave novel. 5. Doubly behead and doubly curtail an oppressive burden, and leave a young bear. 6. Doubly behead and doubly curtail drifted, and leave a grain. 7. Doubly behead and doubly curtail rejected with scorn, and leave a vase. 8. Doubly behead and doubly curtail unusual, and leave fled. 9. Doubly behead and doubly curtail a train of attendants, and leave a metal.

When the beheadings and curtailings have been rightly made, the initials of the nine little words will spell a famous battle fought in 1415.

HELEN A. MORGAN (age 17).

WORD-SQUARE

1. A PLACE where vessels may anchor. 2. To leer. 3. A hint. 4. To retain.

MARGARET HUNT (age 10), *League Member*.

ADDITIONS

(*Gold Badge*. *Silver Badge* won June, 1916)

EXAMPLE: Add human beings to a vehicle, and make a famous opera. Answer, Car-men.

1. Add to acquire to an undeveloped flower, and make a bag with its contents. 2. Add to inquire to an obstruction, and make flowered silk. 3. Add a kind of fly to half of a head-dress, and make a species of large European flounder. 4. Add a color to a covering for the head, and make enmity. 5. Add anger to a serpent, and make to long. 6. Add an epoch to a bit of machinery, and make a device for photographing. 7. Add guided to sum, and make spoiled. 8. Add unin-

teresting to a heavenly body, and make various. 9. Add a beverage to part of a fish, and make termination. 10. Add a snare to a fish, and make a red stone. 11. Add a masculine name to a tree, and make a city of New York State. 12. Add the French word for water to a prickly plant, and make a piece of furniture. 13. Add to recline to the sound made by a dove, and make an East Indian porter. 14. Add a common pest to a stick, and make a horse-fly. 15. Add consumed to a tavern, and make natural. 16. Add a coal scuttle to encountered, and make system. 17. Add a noisy quarrel to the hair of certain animals, and make a trench. 18. Add a common contraction to a vehicle, and make to lean over as a boat. 19. Add a short sleep to a young goat, and make to carry off by force. 20. Add a pronoun to obese, and make a parent. 21. Add termination to a limb, and make a mythical story. 22. Add a cold substance to a word expressing negation, and make to perceive. 23. Add a metal to disfigure, and make a kind of swallow.

The initials of the added words will spell the full name of a man who devised a popular method of measuring heat.

LOUIS BURT (age 15).

KING'S MOVE PUZZLE

1	2	3	4	5	6	7	8
L	E	R	G	R	U	S	K
9	10	11	12	13	14	15	16
D	I	N	S	A	B	C	R
17	18	19	20	21	22	23	24
W	H	E	N	S	H	I	E
25	26	27	28	29	30	31	32
I	O	T	I	C	I	D	R
33	34	35	36	37	38	39	40
L	H	T	E	M	C	E	F
41	42	43	44	45	46	47	48
S	S	A	A	A	L	K	A
49	50	51	52	53	54	55	56
A	S	A	A	A	T	A	G
57	58	59	60	61	62	63	64
S	N	M	T	N	M	A	U

BEGIN at a certain square and move to an adjoining square (as in the king's move in chess), until each square has been entered once. When the moves have been rightly made, the names of seven famous battles may be spelled out. The path from one letter to another is continuous.

RENWICK S. MCIVER (age 14), *League Member*.

ST NICHOLAS

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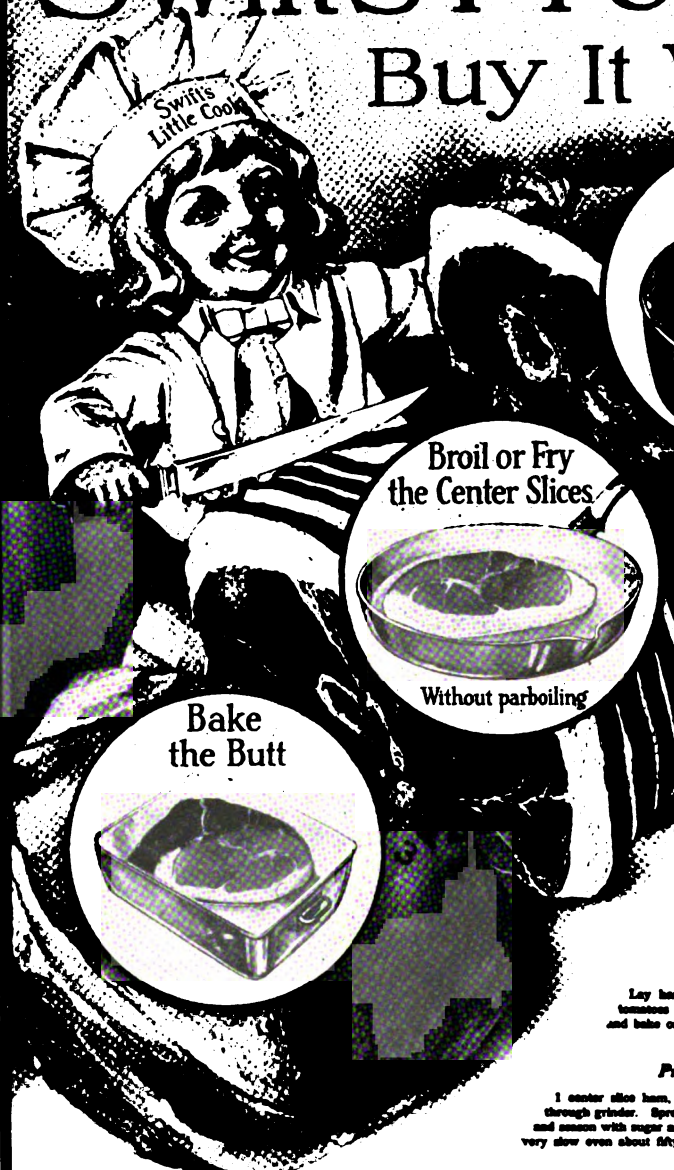
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OCTOBER

1916

"Swift's Premium Buy It Whole



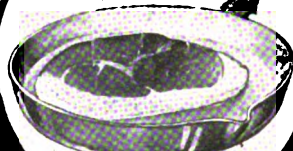
Boil the Shank



Premium Ham Shank with Vegetables

Wash ham shank and boil about three hours slowly. Remove from water and cook in the water cabbage, turnips, carrots and onions, until tender. Reheat the ham and serve as a boiled dinner.

Broil or Fry the Center Slices

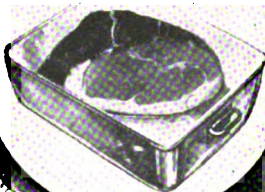


Without parboiling

Premium Ham Shank with Spinach

Wash ham and spinach carefully. Boil ham slowly about two hours and add spinach. Boil rapidly for about thirty minutes. Serve separately and garnish spinach with hard-boiled egg.

Bake the Butt



Premium Ham Baked with Tomatoes and Onions

1 center slice of ham, $\frac{3}{4}$ to one inch thick
3 medium sized tomatoes
3 medium sized onions

Lay ham in baking pan. Slice first the onions and then the tomatoes on top until thickly covered. Add one cup of water and bake one hour, basting frequently with juice in pan.

Premium Ham Baked with Apples

1 center slice ham, about $\frac{3}{4}$ of an inch thick. Cut off the fat and put (fat) through grinder. Spread on ham and cover all with brown sugar. Core apples and season with sugar and spice, put in pan and add $\frac{1}{2}$ cup water. Bake in a very slow oven about fifty minutes.

Creamed Premium Ham on Toast

3 tablespoonfuls butter 2 tablespoonfuls flour
1/4 teaspoonful salt Pepper
1 1/2 cups chopped cooked ham (baked or boiled)
2 hard boiled eggs—sliced 1 cup milk

Melt butter and stir in flour without browning. Remove from fire and add salt and seasoning, stirring well. Return to fire and cook until creamy. Add ham and hard boiled eggs. Serve on toast.

Premium Ham Baked with Macaroni

1 cup of Macaroni broken in small pieces
1/2 cup of grated cheese 1 cup milk
1 cup chopped cooked ham (baked or boiled)
1 tablespoonful of chopped onion, salt and paprika

Boil macaroni in salted water until tender. Drain, rinse with cold water. Add grated cheese, salt, and season with salt and paprika. Fry onion in a little ham fat, add chopped ham. Mix well with macaroni, turn into well-buttered baking dish. Cover with bread crumbs and bake until brown.

Baked Premium Ham

Put a Ham butt in cold water, then boil slowly (one-half hour for each pound), changing the water when half done.

Remove the rind, and insert cloves in the soft fat, cover thickly with brown sugar. Place in a baking dish with water, and bake for one-half hour.

Swift & Company, U. S. A.

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VOL. XLIII

OCTOBER, 1916

No. 12

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THE WHITTLER of CREMONA

BY KATHERINE D. CATHER

It was sundown and May-time, and Cremona was gay in the wealth of green and gold weather. Revelers in fantastic attire went laughing along the promenades, for it was the last day of carnival week, and grave men and women had been transformed into merry-eyed maskers. Instead of a solemn clerk in office or shop, there was a jolly shepherd, or perhaps a dryad, while money-lenders, who on other days looked stern and forbidding, frisked about as goats or clowns or apes. Yes, it was gay in Cremona, for it was May and carnival time, and they come but once a year.

Down in a narrow, alley-like street that crept, zigzag fashion, toward the Duomo, three boys were standing in the shadows.

They wore no masks, not even a scarlet brow-shield to show that they had any part in the merriment that was general on the boulevards, and the shabbiness of their clothing told that they were of Cremona's poor. Perhaps they had crept from the bright-robed throng because of their somber attire; perhaps just to talk over a question that seemed

important, for two of them were in earnest conversation, while the third stood quietly by, whittling at a pine stick. He was younger than the others, with a sensitive face and big, expressive eyes that were brown and velvety, and his companions called him Tonio.

"But I tell you, Salvator, every minute lost now is like throwing gold away. People are generous at carnival time as you well know, and we can get twenty lire to-night as easily as one when the fun is over, for everybody is abroad and a merry heart makes an open hand."

"Perhaps you are right, Gulio, and I will go. Shall we start now?"

His brother nodded and replied: "Yes, to the piazza, in front of the Duomo, where a crowd is always passing. You sing, and I will play. Do you want to go too, Tonio?"

Antonio looked up from the stick that was beginning to take the semblance of a dagger under his knife, and turned his wistful, velvet eyes full on Gulio.

"Yes. I'd like to be with you, even if I cannot sing."

The brothers laughed.

"You certainly cannot sing," Gulio remarked. "You can do nothing but whittle, which is a pity, for that never turns a penny your way. But hurry. People are in their merriest mood now."

And laughing voices sounding from the streets told that he was right.

Gulio picked up his violin, and, followed by Salvator and Antonio, led the way through the alley to a street that skirted the Po. Other Cremonese, both old and young, moved in the same direction, for all wanted to be where the fun was at its height, and that was in the great square in front of the Duomo. The brothers chatted as they went along, for the thought of the money the revelers would give had made them light of heart. But Antonio said little. Gulio's remark that he could do nothing but whittle was still in his mind, and while he knew it to be true, it made him sad. He loved music, yet could have no part in making it, for he did not own a violin; and when he tried to sing, his voice squeaked so that the boys laughed. It was hard to be just a whittler when his companions could play and sing well.

Soon they were in front of the great cathedral, where a throng continually moved by, the brilliancy of the masks and dominos seeming to vie with the hues nature had spread across the sky. For the sun had dropped like a ball of flame on the broad Lombardian plains beyond the city, and masses of purple and maroon clouds were piled along the horizon. Now and then a sail fluttered like a white-winged bird as a pleasure-bark moved up or down the river, or gold-embazoned standards and rich caparisons on the horses and carriages of great lords added color to the scene. There is a saying that all nature is glad when Cremona makes merry, and the glowing beauty of the perfect evening seemed to prove it true.

Without losing a minute Gulio took his violin from its case, and, tuning it with skilful fingers, began the prelude of a Lombardian folk-song. Salvator's voice was sweet and lute-like, and as

he sang to his brother's accompaniment, several of the merry-makers stopped to listen, and dropped coins into the singer's outstretched hand when he finished.

Antonio kept on with his whittling until it was so dark he could not see to work. Then he sat on the cathedral steps and waited for the boys.

A man walked by. He wore neither mask nor domino, and seemed to care little about the gaiety. But seeing the youthful musicians, he came close to where they stood.

"That is a pretty song, lad," he said as Salvator finished another ballad. "Would you sing it again to please a lonely man's fancy?"

He seemed to hear nothing but the music as the boy did what he asked, and stood with half-closed eyes listening to the fresh young voice that blended sweetly with the soft violin accompaniment. Then, handing Salvator a coin, he went on down the street without noticing Antonio, who still sat on the steps.

The boy held the coin up in the waning light and gave a cry.

"*Sacre giorno!* [Holy day!] A gold piece! A gold piece for one song!"

Gulio looked at him dubiously. But when he examined the coin, he too exclaimed: "Truly a gold piece! But he can well afford it. That is the great Amati."

Antonio came and looked at the money. He had seen very few gold pieces, and thought it wonderful that a man should give so much. Then, turning to Gulio, he asked, "Who is Amati, and why do you call him great?"

Salvator stared in amazement.

"You have not heard of Amati?" he asked.

But before he could answer Gulio interrupted: "Of course not. Antonio is just a whittler. He knows about knives and woods, but little about music. Amati is a violin-maker, the greatest in Italy, and very, very rich. Yet men say he cares for nothing in the world but his work."

The brothers were so happy over their good fortune that they were not willing to stay in the street any longer. They wanted to get home with the money, and Antonio had no desire to be there alone. It is jolly to watch a throng of merry-makers when one has companions, but not pleasant to be alone in the midst of gaiety in which you have no part. So he walked with them as far as the bridge across the Po, then went on to his own home and crept to bed. But he did not sleep, for his brain was afire with a thought that had just come into it. He could not sing; he could do nothing but whittle; and here in his own Cremona was a man who with knives and wood made wonderful violins.

Before dawn next day he was up, and, eating a piece of bread, took some things he had made with his knife, and crept out of the house while his parents were still sleeping. Somewhere in the city the master violin-maker dwelt, and he meant to find his home. It was not hard, for all Cremona knew of the great Amati, and while

out with my knife, and want to know if you think I can learn to make violins."

The great man smiled.

"What is your name, lad?"

"Antonio Stradivari," came the eager reply.

"You carve cleverly, but why do you want to make violins?"



"'THAT IS A PRETTY SONG, LAD,' HE SAID AS SALVATOR FINISHED ANOTHER BALLAD."

the matin bells were still ringing Antonio stood at his door.

The servant growled because he disturbed the house so early and scolded him away, so he waited in the street until he was sure it was time for work to begin, when again he rattled the heavy brass knocker. Again the man was about to drive him away, when the master, hearing the servant's angry tones and the boy's pleading ones, came to the door.

"I have brought these things for you to see," Antonio answered when questioned. "I cut them

The boy's face was very earnest as he looked into the master's, and the velvet eyes seemed to grow darker as he spoke.

"Because I love music, and cannot make any. Salvator and Gulio can both sing and play. You heard them last night in the piazza in front of the Duomo and gave them the gold piece. I love music as much as they, but my voice will not make it for me, and I have no other instrument. I can do nothing but whittle."

The master laid his hand—a wonderful hand with strong, skilful fingers—on Antonio's shoulder.



"DAY AFTER DAY HE TOILED IN THE WORKSHOP." (SEE NEXT PAGE.)

"Come into the house and you shall try. The song in the heart is all that matters, for there are many ways of making music. Some play violins, some sing, some paint pictures and make statues, while others till the soil and make flowers bloom. Each sings a song, and helps to make music for the world. If you put your best into it, the song you sing with knives and wood will be just as noble as the one Salvator and Gulio sing with voice or violin."

So Antonio Stradivari, a boy who could not sing, became a pupil of the great Amati. Day after day he toiled in the workshop. Day after day he carved persistently and patiently, until at last he had a violin. It was not done in a week, nor in a month, for the master taught him many lessons beside those in cutting and shaping and string-placing, one of which was that a tiny bit well done each day is what means great achievement by and by. Sometimes he wanted to hurry and work less carefully than his teacher advised, but gradually he learned that patience is worth more than all things else to him who would excel, and when the instrument was finished, he felt repaid for the long days of toil, for the master smiled and praised it, and that was a wonderful reward.

Years passed, and he worked on and on. His squeaky voice no longer troubled him, for although it had not improved, and Gulio and Salvator were both singers much loved in Cremona, he had learned that Amati's words were true, and that if there is a song in the heart there is al-

ways a way of singing it. So he put his best into his work, and his violins became known all over Italy. Musicians said their tone was marvelously sweet and mellow, and wondered how it could be. But to Antonio it seemed very simple, and he said it was just because he put so much love into the making.

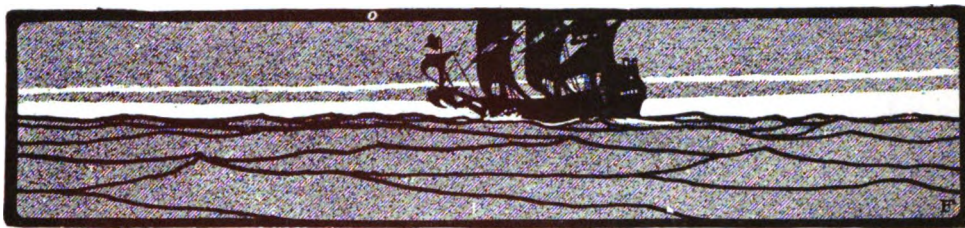
At last Amati died, and his pupil took his place as the master violin-maker of Italy. Salvator and Gulio's voices had become squeaky, and people no longer cared to hear them, but still Antonio kept steadily on at his much-loved work, trying to make each violin better and more beautiful than the one before it.

That was over two hundred years ago, and now, at the mention of Cremona, men think not of the fair city beside the Po, whose stately Duomo still looks out over the fertile plains of Lombardy, but of the world's greatest violin-maker, Antonius Stradivarius. There is no civilized land into which his instruments have not been taken, for musicians prize them more highly than any others, and refuse for them sums greater than any of which the boy Antonio had ever heard. To own a "Strad" is to be rich indeed, and one of the things of which Italy is proudest is that it was the land of Antonius Stradivarius.

All of which, we see, goes to show that although one can do nothing but whittle, he may help to make music for the world if there is a song in the heart and if a noble purpose and patience and persistence keep the hands at work.



STRADIVARIUS' HOUSE AND SHOP



THE FAIRY SHIP

BY HESPER LE GALLIENNE

THERE 's a strange ship in the bay,
So they say;
She has come from Fairy-land,
Where the mermaids, hand in hand,
Sing upon a coral strand
All the day.

All her masts are made of gold,
So I 'm told;
And she flies pure silken sails,
And her flags are peacocks' tails,
And she has the weirdest bales
In the hold.

There are fairies not a few
In her crew,
And to-morrow she 'll be far
Out across the southern bar,
Where the flying-fishes are
In the blue.

SURPRISES

BY EMILY RAYMOND STEARNS

"At any rate," exclaimed Ted Barrow as the vehement conversation among the knot of boys dwindled at last into gloomy silence—"at any rate we won't have her!" By way of emphasis he swung his heavily shod heels more vigorously against the old board-fence on which he was perched.

The group of half a dozen boys, who had gathered for a hasty conference in a vacant lot within view of the academy, were evidently perplexed, and the resolute words of their acknowledged leader failed to create any great stir among them. "Chubby" Ross bent down with much deliberation, as was his custom in every act of life, selected a smooth flat stone, and skipped it with unerring aim across the surface of a distant pool. Somehow the action, the very antithesis of his own, irritated Ted, and he was about to speak when Chubby's drawl intercepted the expression of his thought.

"Sounds all right, Teddy Bear; but how are you goin' to do it?"

"Well, why don't you offer a suggestion yourself, instead of searching out flaws in others'?" retorted Ted.

"Flaws nothing! Can't a fellow ask a civil question?"

It was at this point that another voice broke into what threatened to be a very heated discussion. The voice was rather high-pitched and sweet, and it was the combination of these qualities that had resulted in the owner, Harold Tiers, being called Sissy. His yellow hair, blue eyes, and the fact that he was the youngest boy in the class seemed to him the misfortunes of his life, and he spent the greater part of his school-days in trying to devise some deed that might raise him above such an unworthy appellation.

The voice came rather timidly at first, but grew stronger in his earnestness to help. Then,

too, there was the knowledge that he was steadily though slowly living down the reputation of a sissy. Somehow the boys were beginning to feel that there was more behind his gentle nature than they had thought.

"You boys have argued out the question of putting a woman teacher in Professor Allan's place pretty much from every side, and I have kept still because I don't quite know how you will take what I have to say. Since you have n't

"Great!" put in Chubby; "and what 'd he say?"

"Well, he shoosed me out jolly fast, I can tell you; and I suppose the glass is n't quite all shattered out of the door he banged behind me, but you can just bet your life I did n't look to see."

Ted Barrow leaped off the fence, landing at Sissy's side, and slapped him on the back with an approving look, exclaiming at the same time, "Well, you *are* a good ki—," but stopped to substitute instead: "I say! you 're a brick, and never

mind if it did n't work out. You were n't afraid to try."

Harold's look of joy bespoke his gratitude for the long-hoped-for praise.

"Hurrah for Sissy!" yelled Chubby, who was always the first to speak and the last to think.

Harold's face flushed a little, for though he had in a measure grown used to the name, it jarred strangely after the praise.

Ted caught the look and cried, "Oh forget it, Chubby! Nine 'rahs for Hal."

The nine 'rahs came with such enthusiasm that none could doubt their sincerity.

"That 's something like it," approved Ted; "and now it seems to me there 's only one thing left to do, and that is to let her come. Maybe," he added slyly as the little group broke up—"maybe she won't care to *stay*."

Miss Joan Radcliff, the new teacher, came the next day.

The rumor of her arrival

spread quickly, and keen expectancy and unrest pervaded Room Six as the hands of the clock neared nine o'clock, the opening hour. The hum of excited whispering which had prevailed for the past fifteen minutes ceased abruptly as the face of Professor Eames appeared at the glass of the room door. He entered quickly, accompanied by the new teacher whose coming was so unwelcome.

The professor's piercing eye took in the room with a sharper glance than usual, as if to detect any signs of lurking hostility, but a sort of stubborn silence reigned; then, as he turned to make the introduction, he felt the growing look of partly concealed surprise as Miss Radcliff turned with a sweet, frank smile upon her glowing face.



"SISSY PRODDED THE GROUND AS HE WENT ON."

succeeded in forming any plan, why I 'll tell you what I did to-day." Sissy prodded the ground with a stout stick as he went on; the subject was a tender one with him. "You know, you fellows have always hinted that I was a sort of favored one" (it was "pet" they had really called him) "with old Professor Eames; at any rate, I went to his office to-day and told him just how we all felt about this thing, how we 'd always had men teachers and did n't want a woman in the school."

Sissy was too much absorbed in digging out a hole in the ground to notice the looks of wonder mixed with admiration that passed among the boys; they all knew old Professor Eames only too well, and amiability was not supposed to be his strong point.

Each boy confessed within himself that he had not expected this; so young a woman, and so full of buoyant spirit that it seemed almost boyish in its heartiness. Though a ray of unconscious admiration had quickened for a moment in their hearts, they fought it down with memories of their loyalty to the departed Professor Allan. As they thought of the injustice of their having no voice in the decision, resentment overshadowed the better impulse. Professor Eames felt the reaction, but, saying nothing, left the room.

Again the tide was for a moment turned, this time by a voice; a voice which in its full clear tones was somehow different from voices generally; and then, too, the words were not what they had expected.

"Boys," she began, "I am going to be quite frank with you; I know that you don't want me, and I don't know that I blame you; doubtless a man teacher is ever so much more satisfactory. I might add, too, that I was not particularly anxious to come, knowing the circumstances; but I don't quite see how we are going to help ourselves just now, do you? Don't you think yourselves that we had better try to get along with one another as well as we can until other arrangements can be made? I understand that this plan is but temporary. I am willing to do my best if you are; and now, if some one will kindly tell me what work is scheduled for the first period, we will begin immediately."

Miss Radcliff busied herself about the desk for some little time before any one approached with the desired information. Somehow, there seemed to be nothing else to do just then but to comply with the request, and finally Ted Barrow himself half reluctantly shuffled up with an open book, which he laid upon the table, flushing as the courteous "Thank you" was given. The other boys wondered why they did not greet Ted as he returned; that is what they would have done under ordinary circumstances, yet no one quite felt like doing it.

The morning passed about the same as usual, and the few attempts at annoying Miss Radcliff passed unnoticed, being rather mild and half-hearted. The discussion at noon of the morning's events was very unsatisfactory, and Chubby vowed that things were "fiercely dull." The Thanksgiving game had ended the football season, there was as yet no skating or tobogganing, there was no town near enough to afford any amusement, and nothing to look forward to unless the coming debate with Cuyler Military Academy might be so regarded.

Bob Hastings, a tall thin lad, voiced the feelings of the boys who spent the last few minutes

of the lunch-hour on the sidewalk within hearing of the first bell. Bob was on the debating team and spoke with authority.

"Chubb's certainly said what we think all right; the crowd is dull, school is dull, and so 's the weather; the prospects are, too, for it 's no secret that the debating team has n't a ghost of a chance against Cuyler; never did have much, but without Allan to help—well it 'll be a walk-over, and I 'll tell you right here I 've half a mind to cut it." As Bob finished he gloomily thrust his chin farther into the collar of his gray sweater and his hands deeper into his pockets.

His hearers seemed even more depressed at this threatened desertion of the main prop of the team, but Sissy gave his cap a pull and worked up considerable animation as he spoke.

"Come now, Bob, you would n't do that when you 're the only one we can count on to gain us any points; and anyhow, some are better than none. Even if we have been beaten for the last two years, it 's no reason we should let 'em do it again, is it? It 's my first season on the team, and I 'm going to try for it, anyway!"

As Sissy finished, the bell rang for the afternoon session, and the boys trudged into the building without further comment. Every one felt glad that it was Friday, and each was mentally trying to devise some amusement for Saturday, so there was a general air of abstraction when Miss Radcliff opened the first class. Feeling the lack of interest, the teacher put even more than her usual animation into the history lesson, giving a bright story now and then; but her efforts, while rewarded with some success, yielded results far from satisfactory.

With the boys in this attitude there seemed little gained, and Miss Radcliff decided that as it was Friday, the last day in the school week, she would omit the usual literature class and give the boys a little surprise. It came in the form of portions of Jack London's "Call of the Wild," read in a way that made every listless figure in the room sit up with keen delight and anticipation. The afternoon fairly flew, and as the closing bell with its metallic clang broke the tense silence, there was a murmur and general movement of impatience which told Miss Radcliff, more plainly than words, the result of her innovation.

"Well, she 's all right!" exclaimed Ted Barrow as the crowd of boys piled out of the room; and he needed no answer but the look on his companions' bright faces to tell him that they agreed. Nothing more was said, however, until they reached the outer door, when the silence was interrupted by Sissy:

"Say, fellows, why not ask her to the Lit. meeting to-night?"

The suggestion was unanimously approved, and Sissy fairly flew up the stairs two at a time, arriving breathless and flushed at the door of Room Six. He paused there for a moment upon the threshold, fearing to interrupt the teacher, who sat at her desk, one elbow resting upon it, her chin in the palm of her hand, while her eyes rested on the distant line of hills beyond the window. She was smiling as she recalled the brightened faces of her boys. "Her boys!" She said it only in her heart as yet, but hoped that some day she might speak the thought aloud.

A slight creaking of shoes told her of the presence of one of them as Harold came closer. There was something in that quick, alert turn of the head and welcoming smile that disarmed the boy's timidity, and he told her of his mission. Joan Radcliff did not try to conceal the pleasure that this added tribute gave her, but voiced it most heartily:

"Oh, I shall be so very glad to come! Will you please tell the boys and thank them for me?"

And she did come, but not as the boys had expected to see her; somehow she seemed always to be a surprise, for she was simply yet most attractively dressed in the softest gown of white, as carefully as if it had been a gathering of the older people.

Chubby said that he rubbed his eyes and looked twice to see if it were really she, for he had never dreamed that Miss Radcliff would dress up so beautifully just for them. Ted Barrow pulled down the collar of his coat and gave his tie a twist as she entered, and for one wild moment wished that she had not come, as he realized the difference that her presence made and the duties it entailed. He must do something as president of the club, however, so he rose, and, after stammering a welcome, brought Miss Radcliff a chair, blushing violently the while. All of the boys felt uneasy, and mentally resolved to be more careful about their appearance next

time. But their embarrassment was soon forgotten, for Miss Radcliff entered into their plans with enthusiasm, tactfully making a suggestion here and there, the climax coming when she offered to form a class in public speaking.

It was not till later that they found out that Miss Radcliff had taught in a well-known dramatic school in Chicago.

"We might have known it!" remarked Bob. "People don't just naturally read like that."



"THE PROFESSOR'S PIERCING EYE TOOK IN THE ROOM."

Somehow, as the days went on, things were changing mightily in the academy. Each day Miss Radcliff contributed something of worth and pleasure to the school-hours, and the meeting of the Friday Literary Society was no longer complete without her, her suggestions being so helpful that she was unanimously elected "critic" of the club. The boys were taking a deep interest in the work, and especially in the class of public speaking, which was to mean more to them than they realized. The days were full of variety, and all of the good things seemed to come at once: the skating on the near-by lake was fine, and the heavy snowfalls made wonderful tobogganing in that hilly region.

The only thing that now worried the boys was

the coming debate; and as news of the strength of the Cuyler team and of its many victories reached them, it stirred up their fighting spirit. The subject, "Shall our navy be increased?" was interesting, and the boys were working hard on the points for the affirmative. But, nevertheless, it was with a forlorn hope in their hearts.

Each man on the team was doing his best, but none with the fierce absorption of Sissy, who, unknown to the others, was sacrificing many an hour of pleasure on the pond or toboggan in loyalty to his school. Perhaps the pride of his first year on the team was partly responsible, and then, too, as he told Miss Radcliff, "I 'm no good as an athlete, so I 'll have to try some other way to do the school a good turn."

It was at this point that Miss Radcliff joined the cause and called a special meeting of the team after school-hours.

"Boys," she told them, "I am very much interested in the coming debate with Cuyler; and from what I hear, you seem to have great fears for your success. Now, I know you miss the help that Professor Allan always gave you, and I only wish that I were able to do all he would have done. I want to tell you, however, that I am going to try, and have already been looking up the subject. There seems to be one thing that you have not thought of, and that is what a tremendous help our class in public speaking is going to be. Now I propose that we use our Friday literary meetings from now on to practise for the debate. We 're going to win, boys; we 've just got to win!"

The words, spoken with such enthusiasm, were answered with a yell for Miss Radcliff, bespeaking such pent-up energy that she longed to put it to better use. The boys were wild with eagerness and hope, and worked up their points and those contributed by the teacher with a will that left nothing to wish for. Miss Radcliff not only put the points in the best form, but taught the boys how to deliver them with the most telling effect. Voice development, enunciation, and ease came more and more readily. Extra meetings were arranged, and no labor seemed too hard in the interest of the cause.

As the great day came nearer and nearer Miss Radcliff's interest grew into enthusiasm, kindling the same spirit in the awakened team, and when at last the boys dispersed after their final Friday rehearsal on the day before the debate, her last words were:

"Good-night, my boys, and early to bed. I shall be at the train to-morrow morning to see you off, and remember, *we 've got to win!*"

"I wish I could be there," she thought; "it will

be a jolly, noisy trainful, I 'll warrant!" And she went up to Professor Eames's office to arrange for the making out of the semi-final examinations, which was to be her next day's work. "I 'm afraid my mind will be far too much on the debate," she sighed, and tried to banish it from her thoughts.

The next morning dawned clear and cold. As Miss Radcliff reached her room after breakfast the strains of a brass band greeted her. Nearer and nearer it came, and as she reached the window of her room in a hotel near the school the band came in sight, escorted by the entire academy force and swelled in numbers by the girls of the Park school. Pennants of yellow and blue were wildly waving, and the shouting almost drowned the noise of the band. Nearer they came, and Miss Radcliff's eyes wore a puzzled look as they all turned up the walk leading to the hotel. They did not stop there, however, but streamed into the wide corridors, and then came a great whole-hearted yell:

"Rah! Rah! Rah! Rah! Rah! Rah! Miss Radcliff!"

Tears filled the teacher's eyes as she slipped out of the room into the upper hall, and, leaning over the banister in her girlish enthusiasm, voiced her thanks in quavering tones.

"Good-by, my boys, and remember you 're to bring me great news!" she called, and had turned to run back to her room when Bob cried:

"Oh, Miss Radcliff! put on your things and come on with us to the train."

"Why, boys, it 's too early, is n't it?"

"We want you to come now," was the answer.

Miss Radcliff slipped into her long fur coat, put on her hat, and, hastily seizing her gloves and muff, left the room. As she reached the bottom landing of the stairway, the bevy of boys comprising the team closed in around her, and Bob and Ted, each slipping an arm in hers, led her out of the hotel, followed by the swarm of boy and girl rooters and a volley of cheers.

As they neared the street with the protesting teacher, an open carriage drawn by two white horses came around the corner. Before the wondering teacher realized what was happening one of the boys cried:

"You 're going with us to Cuyler."

"But, boys!" she exclaimed, "there are no end of reasons why I cannot go."

"I 've settled those," came the gruff voice of Professor Eames as he came out through the crowd, followed by a boy with a suitcase. "One of the girls packed that," he added, as he seated Miss Radcliff in the carriage and placed the suitcase beside her. "The new gown is there, I be-

lieve; it 's the boys' favorite, you know; and there 's the officers' ball following the debate, you see. Good-by and best wishes!" He raised his hat and disappeared in the crowd.

"Who 's surprised now?" cried Sissy, as he

had happened, and that it was only when she sat with beating heart following point by point the steady progress to victory of "her boys" and the applause which urged them to their best, that she fully realized where she was.



"'I'VE SETTLED THOSE,' CAME THE GRUEF VOICE OF PROFESSOR EAMES."

took one of the seats of honor in the carriage, depositing a huge bouquet "from the team to the new coach," he told her.

Miss Radcliff said afterward that even the jolting of the train over the notoriously bad road to Cuyler did n't wake her to a realization of what

But 'her boys maintain that it was not the applause, but the knowledge of her presence, that helped them to win, and as they stood watching her that evening in all her girlish enjoyment of the ball, they vowed that all the powers that be could n't make them give her up.



Painted by Paul Hoecker.

Courtesy of Franz Hanfstaengl.

"HE DOES N'T LIKE STRANGERS."

EXPERT FOOTBALL FOR THE SPECTATOR

OR, HOW TO WATCH A FOOTBALL GAME AS AN EXPERT VIEWS IT

BY PARKE H. DAVIS

Author of "Football, the American Intercollegiate Game," and
Representative of Princeton University on the Rules Committee

PART I

GENERAL TACTICS

THROUGHOUT the United States this autumn, football will be characterized by elaborate and highly perfected systems of tactical play. Hitherto, expert followers of the sport have been limited, in the exercise of their special talents of observation, to the major games of the leading football elevens. To-day conditions are changed. Coaches far and wide are now familiar with the most advanced features of football tactics; and—what is equally important—the abundance and distribution of first-class football players will enable the generals of the gridiron to employ these modern methods of play on small elevens as well as large.

But have you, honored Spectator,—whether boy or man, college youth or college girl,—also kept pace with the game? You and your six million comrades of the stands and stadia may be conversant with "shifts," "fake kicks," "delayed passes," "spread" and "split" plays, but do you know what is meant by "twinning up," "flying blocks," "wheel shifts," "waiting ends," and "passive interference"? If you do not, then you are in need of further football schooling if you would more deeply enjoy the great spectacles the football men of the country have prepared to unfold before you this fall.

During the past winter, hundreds of the brightest men participating in the sport have assembled by groups at their respective schools and colleges, and, as boards of tactics and strategy, have planned in minute detail offensive and defensive systems for the teams which they represent. During the months of September and October their field coaches will teach these systems to the players. ST. NICHOLAS, therefore, purposes to teach its readers in its October and November issues how to become expert spectators at football games and thereby increase many-fold their enjoyment of the autumn's gridiron campaigns.

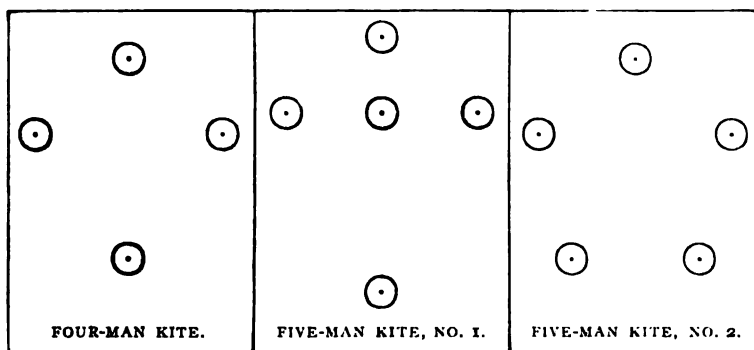
We assume, in the beginning, that you possess a fair knowledge of the rules. It will be our happy service, then, to teach you the standard

formations, methods, and manœuvres in the principal departments of play, minor as well as major, so that your educated eye may note the observance of regulation tactics in the games of the season, and instantly detect, also, the innovations and variations. With this fundamental knowledge fully acquired, as it must be by all experts, you must then apply your education by watching *all* the players upon the field (not merely the players surrounding the ball, as the average spectator usually does). So let us take a jaunt through the mazes of expert football.

On your way to a game, if you have not done so before, you should familiarize yourself with the names of the probable players in each position upon the two teams. Enjoy with all your companions the booming cheers and boisterous songs that greet the arrival of the players; but be not too distracted thereby to identify the principal players by some peculiarity of appearance or uniform while these men are running through their preliminary practice. If the players are numbered, this task is easy. Unfortunately for the spectator, however, many teams decline to adopt this considerate measure.

As the two elevens deploy upon the field for the kick-off the ordinary spectator will be running his eye at random up and down the field. Not you, however. Your attention at first must be directed to the formation assumed by the defense. If this is standard, you will observe three men at equal intervals along the fifty-yard line, three more likewise evenly spaced along the five-yard line, with the remaining five men evenly distributed over the large square space which lies between these two yard lines. Any variation from standard will be found in the placing of these five men. The personnel of the arrangement especially invites close inspection. The strongest running-back will be, or at least *should* be, stationed directly in front of the goal-posts so as to increase his chances and opportunities for obtaining the ball. The players grouped around him will be composed of the best runners and running-interferers of the team, leaving the less active men forward to act as blockers.

The offensive eleven may now be scrutinized. They will be found distributed along the thirty-five-yard line so as to obtain a running start of five yards with the ball. With these preliminary observations completed, the eye should now be fixed upon the player who is to make the kick-off, in order to ascertain as quickly as possible which one of four different kick-offs is to be delivered. As almost everybody knows, these are: (1), the long, straight kick across the goal-line; (2), a



kick into the corner of the field; (3), a dribble of ten yards obliquely to the right or left of the kicker; and, (4), the straight kick down the middle of the field but for a distance short of the goal-line.

As the ball rises into the air the observer should be able to recognize which of these four kick-offs has been chosen, and instantly he should wrest his gaze away from the ball and sweep both sides of the field with his eye. On the kicking side he will see nine men (or occasionally eight) charging down the field under the kick, with the other players of that side remaining alertly behind to catch the ball if the kick should be returned. The spectator also should note the course taken by the two outside or "end" players of this side, since these two men should be cautiously covering the flanks to guard against a side-line run and particularly a side-line run made from a lateral pass, or from a double pass, or any other trick-combination. While the ball is still in the air, the expert observer also should be able to foresee the forthcoming play by the receiving side, from the manner in which its players range into position. For it will be (1), a dash straight up the field; (2), a dash to right or left; (3), a return kick; or (4), a pass or trick-combination, as stated above. Thus, as the ball strikes the ground or settles into the arms of its receiver, the observer is prepared to refix his eyes upon the ball and enjoy the spectacular feature of the ensuing play.

It is an interesting fact in the history of kick-

offs that the most successful run-backs of the kick have been those directed straight up the center of the field, and not those attempted around either flank. In fact, of all the famous runs of this class that have terminated in a touchdown, only one, the dash of Charles D. Daly of the Army against the Navy, November, 1901, was executed along a side-line. The difficulty of making a flank run lies in the exposure of the runner to the side-line on his one hand,

and his exposure to eleven open-field tackles in succession on the other. Curiously enough, the grouping which makes possible a successful run through the very center of opponents, is the very grouping chosen to prevent it: the massing of nine or more men at the place of impact. Here these nine or more men sometimes so interlock and interfere with one another that no one of them can make the tackle, whereupon the runner

occasionally is forced through the mass into an open field in which only one or two men remain to be evaded. Hence the sharp-eyed observer will see the players charging down the field under a kick-off space themselves, if well coached, so as not to become a helpless, interlocked mass when the two groups of players collide.

With the game opened, the real pleasure of the expert observer commences. He ought to begin by ascertaining the "regular" offensive and defensive formations for each one of the two elevens. The defensive systems will yield themselves the more easily and quickly to his study, so these will be discussed first. As the two teams line up for the opening scrimmage the spectator should accurately locate the yard line upon which, or near which, the ball rests. In fact, on every play throughout the game this caution must be carefully and methodically observed, since first-class elevens to-day employ special systems for special divisions of the playing field.

If the defensive eleven is outside its twenty-five-yard line and also is at least fifteen yards distant from the nearest side-line, one of three standard defensive formations may be expected. All three of these are kite-shaped formations, one being composed of the four backs, and the other two made up of four backs and a lineman. In modern football, when two teams are fairly well matched, it is believed that six men upon the defensive line of scrimmage should be sufficient, between the twenty-five-yard lines, to withstand a running attack, thereby permitting one

man to be withdrawn to augment the back-field defense against forward passes and runs. If the rush-lines are not fairly well matched, the stronger side may withdraw two men from the line, thus leaving only five forwards. The three kite-shaped defensive formations are shown on the previous page.

A single glance over the back-field will be sufficient to note the use of the above formations, or a variation of one of them. Now run your eye swiftly but carefully along the line. If you find seven men, note accurately the spacings be-

of the line requires continual watching throughout the game, since the outposts are the most highly specialized positions along the line. As is generally known, there are two distinct systems of end-rush defensive play to-day: the "waiting" and the "charging" (or, as the latter is designated in some sections of the country, the "smashing"). If the waiting system is employed, the observer will find the end-rush deploying five or more yards distant from the adjacent tackle. He will be standing almost erect, facing in, and alertly watching the opposing



KANSAS WITHSTANDS OKLAHOMA, NORMAN, OKLAHOMA, 1915.

Note the uneven spacing between guard and tackle compared with the spacing between center and guard. Also note that the defensive Kansan center is playing to the left of his opponent. Kansas is using the "four-man kite back-field defense."

tween them. If it is a Harvard eleven, or an eleven coached by a Harvard man, you will find the spaces between the various players substantially equal. If, however, it is a Princeton or Yale team, or a team coached by a player from these institutions, you will find the space between tackle and guard wider than that between guard and center. The Princeton-Yale theory is that the point outside of tackle, being the most vulnerable along the line, should thus be strengthened by deploying the tackle widely. To restore the weakness thus made inside of tackle, both Princeton and Yale select for tackles exceptionally strong and heavy men, who are able to turn the runner toward the inside of their line and thus force him against the guard. The Harvard system, spacing equally, thereby distributes the element of weakness "off" tackle. Let the spectator now try to ascertain for himself, as a practical application of his expert knowledge of the game, which system is the better by comparing their efficiency in actual play.

The space between tackle and end on each side

backs. With the snap of the ball he will take, usually, three steps across the line, and then—crouching slightly forward, his arms outstretched and stiffened like rods of steel—will await the impact of the interference against him, when he will endeavor to check it or to sweep it aside, either tackling the runner with the ball or forcing him to turn inside. If the charging system is in use, the spectator will find the end crouching low upon the line and not more than three yards distant from the adjacent tackle. At the snap of the ball, this end will leap across the line with terrific power, and charge into the forming interference in order to smash it in the forming and force the runner with the ball into the open before the latter can get under way. The waiting end-defense is more generally employed nowadays because of the double duty imposed upon the end of stemming end-runs and also covering forward passes. By waiting momentarily he gives the play time to develop. Although this plan also gives the interference time to form and gather momentum, experience has proved that a

good end still is able, in the majority of attacks, to check the run, or, if the play evolves into a forward pass, to cover his designated opponent, as we will describe later.

When the end deploys far from his tackle, he

tion will cause a rearrangement of the two defensive guards. If the center stands to the right of his opponent, the defensive right-guard may be seen to move to the outside of his opponent. If, however, the center plays to the left of his



AN "END-AROUND" PLAY.

Izard, Washington and Lee's left end, carrying the ball around his right end, thereby contributing to a 20 to 0 victory over Wesleyan. 1915.

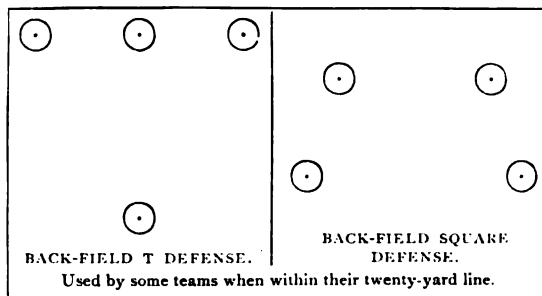
is said to be playing a "wide end-defense"; if near, a "close end-defense." As first-class elevens vary throughout a game, according to a signal, from waiting to charging end-defenses, in order to confuse opponents, no feature of defensive rush-line play will afford the expert observer greater pleasure than the detection and operation of these brilliant systems of end-defense.

The final feature of prime interest along the rush-line is the system of center-defense. Again, as is generally known, the center at times plays in the line, and at other times he plays a yard or so behind his line. When the center is playing behind his line, he is said to be "loose" or "roving." As the center will vary his position from line to loose according to a definite system based upon the position of the ball upon the field, the number of the down, and the distance to be gained, his movements challenge the wits of the expert observer to ascertain the system by which they are guided. It will aid the spectator to know in advance that loose center play seldom is seen when the ball is within the defensive eleven's twenty-yard line, and that it is seldom employed at any point on the field when the conditions indicate a certain kick on the forthcoming play.

When the center is in the line, the expert observer must note from play to play on which side of the offensive center the former takes his stand, for he will vary from play to play and this varia-

opponent, the right-guard will face the opposing guard, and the defensive left-guard will move to the outside of *his* opponent. The observer also will note, if alert, that the variation of the defensive center from right to left, and vice versa, is based upon the changes in the formation of the offensive backs, the center always facing the strong side of the formation, which will be the side upon which the offense has grouped the more backs.

All of the foregoing applies, as has been said, only when the defensive eleven is outside of its own twenty-yard line. When a team lines up inside of that yard line, or approximately within

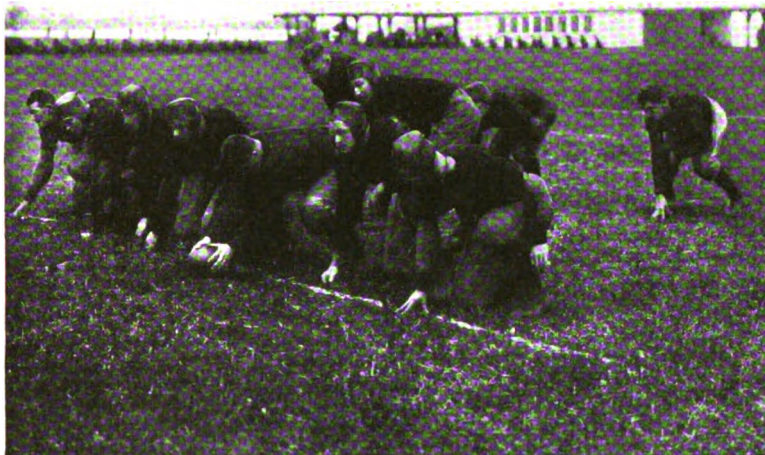


it, the back-field arrangement will change into one of two leading formations. One of these is the T defense, in which three backs at equal intervals four yards behind the line support the forwards, while the fourth back stands ten yards

behind the center on the alert for a forward pass. The other goal-line defense is the double-line back-field defense, in which a back stands four yards behind each tackle, and a back ten yards behind each end. In the T defense the preponderance of defensive strength is directly behind the line. In the double-line defense the strength is evenly distributed over the back-field.

Whenever the ball is put in play within fifteen yards of either side-line, the expert observer must carefully scan both the line and back-field formation of the defensive eleven. If the ball is too close to the line to permit the defensive linemen to occupy their regular positions, the play of

tackle, and end stand in order on either side of the center. This order, however, the observer will quickly see is varied in numerous ways. A tackle may be withdrawn from one side and aligned by the side of the tackle on the opposite wing,—a move known as “twinning up,”—or it may be the guards who twin. At times, tackles and guards will be twinned simultaneously, and occasionally (but seldom) guards, tackles, and ends, thus leaving the center-rush on the end of the line. If one of the teams is of the Harvard school of football, the basic line-formation will be the unbalanced line. Here the observer will note the order of the linemen as they line up to



AN ANALYSIS OF A NAVY FORMATION.

In this offensive formation of the eleven of the United States Naval Academy the expert spectator will note the unbalanced line and the tandem formation of the backs in which the two rear backs are more than ordinarily distant from the line. The place and posture of the quarter-back indicates that the ball on the forthcoming play will be snapped directly from center to the runner.

the end invites especial attention. Occasionally he will be seen to cross over and take a position beside the other end; or he may drop a yard or two behind his line and still protect the end of the line from an attack along the side-line. The backs, also, will assume a different formation in order to reinforce the defense against an attack on the wide flank on the open side of the field.

PART II

THE offensive systems of the two teams will not be unraveled by the expert observer so quickly as the defensive, but they will yield, nevertheless, to methodical observation.

The basic line-formation may be assumed as the old-fashioned balanced line in which guard,

be end, tackle, center, guard, guard, tackle, and end, the personnel of the linemen, relatively to one another, never changing.

As thus arranged, the strong side would be on the right. If it is desired to throw the strong side to the left, the line revolves around the center as a pivot, thus reversing the line but still maintaining the relative order and position of the seven men.

The spectator must learn to count the number of players on the offensive line frequently, for he will thus detect at times an augmented line, caused by one and sometimes two backs lining up on the line with the forwards. If at any time more men are found on one side of the snapper-back than upon the other, that side is known to football men as the “long” or “strong” side. The

opposite wing is designated as the "short" or "weak" side. These variations in the line will be effected by shifts, and the expert observer

is sometimes called a "jump shift," and also is known as "the Minnesota shift"—from the eleven which introduced it to the science of the game.

If the line is revolved around the center-rush in the manner of Harvard teams, it is known as a "wheel shift." These constitute the leading line variations. If the expert observer encounters others, as he will, he must classify them as innovations and congratulate himself upon his cleverness in detecting them.

The arrangement of the four back-field players on offense may take on almost numberless forms. These, nevertheless, are capable of being classified in five different formations, since the only differences among them will be the relative distance be-

tween the players in each one of these five leading formations.

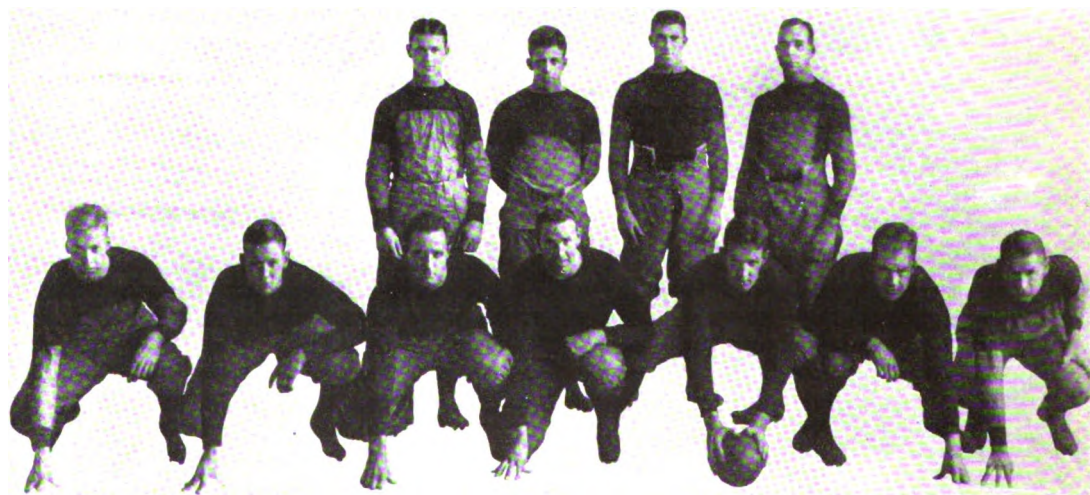
The first of these, at least in age, is "the balanced line," in which three backs stand in a row directly behind the center of the rush-line, with the fourth back in front of them. This is the



THE BALANCED LINE.

The Washington and Lee Varsity of 1915 arrayed in the familiar formation known as the "balanced line." A distinctive characteristic of this line-up, also to be noted, is the uneven spacing of the line-men.

should watch closely how these shifts are maneuvered. The men simply may walk from one position into another prior to the snap of the ball; or they may line up with the backs and at a signal leap forward upon the line, frequently accompanied by one or two of the backs. This



HARVARD'S FAMOUS FOOTBALL ELEVEN OF 1915.

Showing the Crimson's most celebrated players, with the seven forwards crouching, in Harvard's distinctive formation, "the unbalanced line." Reading from left to right the players are: (standing), W. J. Boles, R. S. C. King, E. W. Mahan, backs; D. C. Watson, quarter; (crouching), R. Harte, end; K. B. G. Parsons, tackle; H. H. Dadmun, guard; R. R. Cowen, guard; D. J. Wallace, center; J. A. Gilman, tackle; and E. W. Soucy, end.

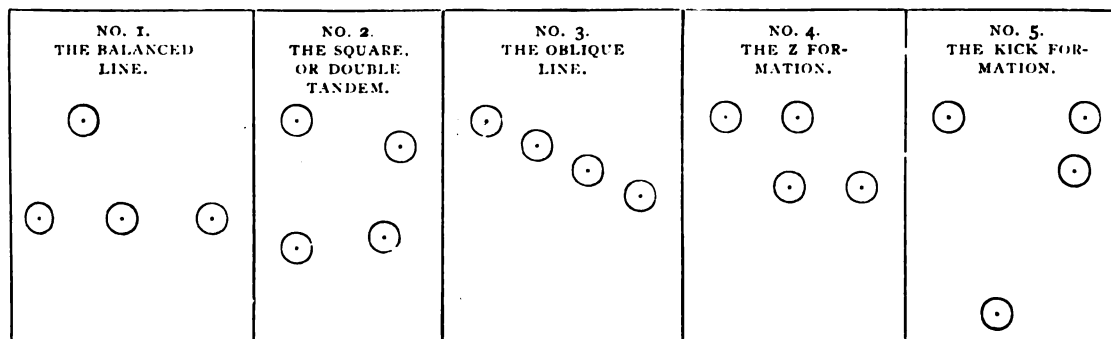


THE "SQUARE FORMATION," OR "DOUBLE TANDEM," IN ACTION.

Pennsylvania State, with backs in double-tandem formation, endeavoring to pierce Westminster's line between guard and tackle. The Westminster eleven is playing seven men in the line on defense, on account of the nearness to their goal-line. The Westminster backs are in the "square" defensive formation.

ancient, classic back-field formation of the inter-collegiate game, but nowadays it is seldom used. In recent years the most common arrangement is "the square" or "double tandem." In this formation the quarter-back stands behind the center, although slightly to one side. If the "strong" side of the formation is on the right, a back, known as the first back, will be seen about a yard behind the line, facing the opening between guard and tackle. One yard and a half behind

the rush-line. This is the formation from which most multiple passes are thrown. The fourth formation, generally known as the "Z" formation, although not accurately so, since the two middle-backs are in a straight and not an oblique line, has been popularized in late years by Cornell and by the Army. The fifth formation is the ancient "kick formation," which in recent tactics has also become the most formidable scrimmage formation.



BACK-FIELD SCRIMMAGE FORMATIONS.

the first back will stand the second back, and the third back will be seen three yards and a half behind the center. If the strong side of the formation is on the left, these positions simply will be reversed to fit the left side of the rush-line.

The third formation is that in which the backs are found arrayed in a straight line, obliquely to

Such is the first lesson in the expert observation of a football game. It will be noted that only the general, basic formations have been discussed. In the November issue, ST. NICHOLAS will present its second lesson for the spectator, in which will be set forth the special tactics for the leading manœuvres in the game.

(To be concluded.)

THE BOYS' LIFE OF MARK TWAIN

BY ALBERT BIGELOW PAINE

Author of "Mark Twain, a Biography," etc.



MARK TWAIN IN HIS
OXFORD GOWN.

CHAPTER XL

MARK TWAIN ARRANGES FOR HIS BIOGRAPHY

I was at the beginning of 1906—a little more than a month after the seventieth-birthday dinner—that the writer of these chapters became personally associated with Mark Twain. I had met him before, and from time to time he had returned a kindly word about some book I had written, and inconsiderately sent him, for he had been my literary hero from childhood. Once, indeed, he had allowed me to use some of his letters in a biography I was writing of Thomas Nast; he had been always an admirer of the great cartoonist, and the permission was kindness itself. Before the seating at the birthday dinner, I happened to find myself for a moment alone with Mark Twain and remembered to thank him in person for the use of the letters. A day or two later I sent him a copy of the book. I did not expect to hear from it again.

It was a little while after this that I was asked to join in a small private dinner to be given to Mark Twain at The Players, in celebration of his being made an honorary member of that club, there having been at that time only one other member of this class, Sir Henry Irving. I was in The Players a day or two in advance of the date, and David Munro, of the "North American Review," a man whose gentle and kindly nature made him "David" to all who knew him, greeted me joyfully, his face full of something he knew I should wish to hear.

He had been chosen, he said, to propose The Players' dinner to Mark Twain, and had found him propped up in bed, and beside him a copy

of the Nast book. I suspect now that David's generous heart prompted him to speak of the book, and that Mark Twain's comment lost nothing in the eager retelling.

The Players' dinner to Mark Twain was given on the evening of January 3, 1906, and the picture of it still remains clear to me. The guests, assembled around a single table in the private dining-room, did not exceed twenty-five in number. It so happened that my seat was nearly facing the guest of the evening. Lit by the soft glow of the shaded candles, outlined against the richness of the shadowed walls he made a figure of striking beauty. I could not take my eyes from it, for it stirred in me the farthest memories. To Charles Harvey Genung, who sat next to me, I whispered something of this, and how, during thirty-six years, no one had meant to me quite what Mark Twain had meant—in literature and, indeed, in life. Now here he was just across the table. It was a fairy tale come true.

Genung said, "You should write his life."

It seemed to me no more than a pleasant remark, but he came back to it again and again, trying to encourage me, while I put him off by saying that certainly some one of longer and closer friendship and larger experience had been selected for the work. Then the speaking began, and the matter went out of my mind. Later in the evening, when we had left our seats and were drifting about the table, I found a chance to say a word to our guest concerning his "Joan of Arc" which I had recently re-read. To my happiness, he told me that long-ago incident—the stray leaf from Joan's life, blown to him by the wind—which had led to his interest in all literature. Then presently I was with Genung again, and he was still insisting that I write the life of Mark Twain. It may have been his faithful urging, it may have been the quick sympathy kindled by the name of Joan of Arc; whatever it was, in the instant of bidding good-by to our guest, I was prompted to add: "May I call to see you, Mr. Clemens, some day?" And something—to this day I do not know what—prompted him to answer, "Yes, come soon."

Two days later, by appointment with his secretary I arrived at 21 Fifth Avenue, and waited in the library to be summoned to his room. A few moments later I was ascending the long stairs, wondering why I had come on so useless

an errand, trying to think up an excuse for having come at all.

He was propped up in bed—a regal bed, from a dismantled Italian palace—delving through a copy of “Huckleberry Finn” in search of a paragraph concerning which some unknown correspondent had inquired. He pushed the cigars toward me, commenting amusingly on this correspondent and on letter-writing in general. By and by, when there came a lull, I told him what so many thousands had told him before—what his work had meant to me so long ago. Very likely he was willing enough to let me change the subject presently and thank him for the kindly word which David Munro had brought. I do not remember what was his comment, but I suddenly found myself saying that out of his encouragement had grown a hope (though certainly it was less) that I might some day undertake a book about him. I expected my errand to end at this point, and his silence seemed long and ominous.

He said at last that from time to time he had himself written chapters of his life, but that he had always tired of the work and put it aside. He added that he hoped his daughters would one day collect his letters, but that a biography—a detailed story of a man's life and effort—was another matter. I think he added one or two other remarks; then all at once, turning upon me those piercing, agate-blue eyes, he said:

“When would you like to begin?”

I vividly recollect saying to myself: “This is not true. It is only one of many similar dreams.” But even in a dream one must answer, and I said: “Whenever you like. I can begin now.”

He was always eager as a child in any new undertaking.

“Very good,” he said; “the sooner, then, the better. Let's begin while we are in the humor. The longer you postpone a thing of this kind the less likely you are ever to get at it.”

This was on Saturday. I asked if Tuesday, January 9, would be too soon to begin. He agreed that Tuesday would do, and inquired as to my plan of work. I suggested bringing a stenographer to make notes of his life-story as he could recall it, this record to be supplemented by other material—letters, journals, et cetera. He said:

“I think I should enjoy dictating to a stenographer, with some one to prompt me and act as audience. The room adjoining this was fitted up for my study. My manuscript and notes and private books and many of my letters are there, and there are a trunkful or two of such things in the attic. I seldom use the room myself. I do my writing and reading in bed. I will turn that room

over to you for this work. Whatever you need will be brought to you. We can have the dictations here in the morning, and you can put in the rest of the day to suit yourself. You can have a key and come and go as you please.”

That was always his way. He did nothing by halves. He got up and showed me the rich luxury of the study, with its mass of material, disordered, but priceless.

It was true, after all; and on Tuesday morning, January 9, 1906, I was on hand with a capable stenographer ready to begin. Clemens, meantime, had developed a new idea: he would like to add, he said, the new dictations to his former beginnings, completing an autobiography which was to be laid away and remain unpublished for a hundred years. He would pay the stenographer himself and own the notes, allowing me, of course, free use of them as material for my book. He did not believe that he could follow the story of his life in its order of dates, but would find it necessary to wander around, picking up the thread as memory or fancy prompted. I could suggest subjects and ask questions. I assented to everything, and we set to work immediately.

As on my former visit, he was in bed when we arrived, though clad now in a rich Persian dressing-gown and propped against great snowy pillows. A small table beside him held his pipes, cigars, papers; also a reading-lamp, the soft light of which brought out his brilliant coloring and the gleam of his snowy hair. There was daylight, too, but it was dull winter daylight, from the north, while the walls of the room were a deep, unreflecting red.

He began that morning with some memories of the Comstock mine, then he dropped back to his childhood, closing at last with some comment on matters quite recent. How delightful it was—his quaint unhurried fashion of speech, the unconscious habits of his delicate hands, the play of his features as his fancies and phrases passed through his mind and were accepted or put aside. Time did not count. When he finished, at last, we were all amazed to find that more than two hours had slipped away.

“And how much I have enjoyed it!” he said. “It is the ideal plan for this kind of work. With shorthand dictation one can talk as if he were at his own dinner-table. I expect to dictate all the rest of my life if you good people are willing to come and listen to it.”

The dictations thus begun continued steadily from week to week, with increasing charm. We never knew what he was going to talk about, and it was seldom that *he* knew until the moment of beginning. But it was always fascinating, and

I felt myself the most fortunate biographer in the world, as indeed I was.

It was not all smooth sailing, however. In the course of time I began to realize that these marvelous dictated chapters were not altogether history, but were often partly, or even entirely, im-

aging old, and soon I shall remember only the latter."

Yet it was his constant purpose to stick to fact, and especially did he make no effort to put himself in a good light. Indeed, if you wanted to know the worst of Mark Twain, you had only to ask him for it. He would give it to the last syllable, and he would improve upon it and pile up his sins, and sometimes the sins of others, without stint. Certainly the dictations were precious, for they revealed character as nothing else could; but as material for history they often failed to stand the test of the documents in the next room—the letters, note-books, agreements, and the like—from which I was gradually rebuilding the structure of the years.

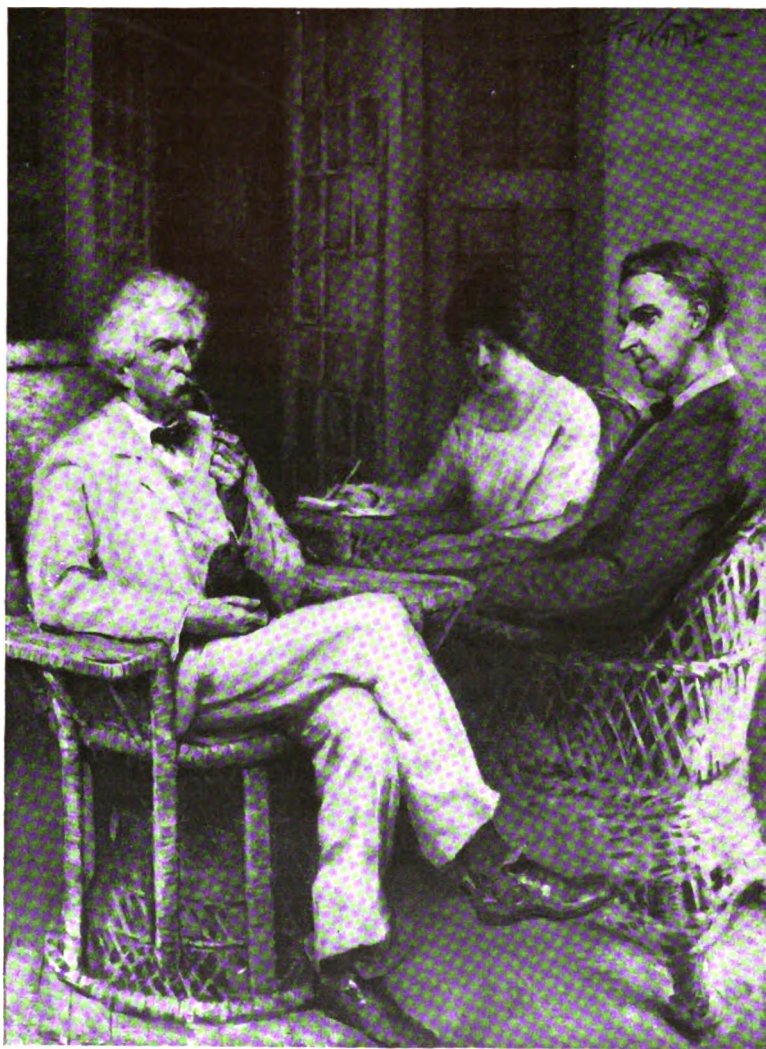
In the talks that we usually had when the dictations were ended and the stenographer had gone I got much that was of great value. It was then that I usually made those inquiries which we had planned in the beginning, and his answers, coming quickly and without reflection, gave imagination less play.

There was generally a humorous complexion to the dictations, whatever the subject. Humor was his natural breath of life, and was rarely absent.

Perhaps I should have said sooner that he smoked continuously during the dictations. His cigars were of that delicious fragrance which belongs to domestic tobacco. They were strong and inexpensive, and it was only his

early training that made him prefer them. Admiring friends used to send him costly imported cigars, but he rarely touched them, and they were smoked by visitors. He often smoked a pipe, and preferred it to be old and violent. Once when he had bought a new expensive briar-root, he handed it to me, saying: "I'd like to have you smoke that a year or two, and when it gets so you can't stand it, maybe it will suit me."

In May the dictations were transferred to Dub-



MARK TWAIN DICTATING HIS REMINISCENCES AT DUBLIN, NEW HAMPSHIRE.

aginary. The creator of *Tom Sawyer* and *Huck Finn* had been embroidering old incidents or inventing new ones too long to stick to history now—to be able to separate the romance in his mind from the reality of the past. Also, his memory of personal events had become inaccurate. He realized this, and once said in his whimsical, gentle way:

"When I was younger, I could remember anything, whether it happened or not; but I am get-

lin, New Hampshire, to the long veranda of the Upton House on the Monadnock slope. He wished to continue our work, he said, so the stenographer and myself were presently located in the village, and drove out each morning to sit facing one of the rarest views in all New England while he talked of everything and anything that memory or fancy suggested.

The long veranda was ideal. He was generally ready when we arrived, a luminous figure in white flannels, pacing up and down before a background of sky and forest, blue lake and distant hills. When it stormed, we would go inside to a bright fire. The dictation ended, he would ask his secretary to play the big organ, which at great expense had been freighted up from New York. Certain symphonies by Beethoven, an impromptu by Schubert, and a nocturne by Chopin were the selections he cared for most, though in certain moods he asked for the Scotch melodies.

There was a good deal of social life in Dublin, but the dictations were seldom interrupted. He became lonely now and then, and paid a brief visit to New York or to Mr. Rogers in Fairhaven, but he always returned gladly, for he liked the rest and quiet, and the dictations gave him employment. A part of his entertainment was a trio of kittens which he had rented for the summer—rented, because then they would not lose ownership and would find home and protection in the autumn. He named the kittens "Sackcloth" and "Ashes," Sackcloth being a black and white kit, and "Ashes" a joint name owned by the two others who were gray and exactly alike. All summer long these merry little creatures played up and down the wide veranda, or chased butterflies and grasshoppers down the clover slope, offering Mark Twain endless pleasure.

In spite of his resolve not to print any of his autobiography until he had been dead a hundred years, he was persuaded during the summer to allow certain chapters of it to be published in the "North American Review." With the price received, thirty thousand dollars, he announced he was going to build himself a country home at Redding, Connecticut, on land already purchased there, near a small country-place of my own.

CHAPTER XLI

LIVING WITH MARK TWAIN

WITH the return to New York I began a period of closer association with Mark Twain. Up to that time our relations had been chiefly of a literary nature. They now became personal as well. It happened in this way. Mark Twain had

never outgrown his love for the game of billiards, though he had not owned a table since the closing of the Hartford house, fifteen years before. Mrs. Henry Rogers had proposed to present him with a table for Christmas, but when he heard of the plan, boy-like, he could not wait, and hinted that if he had the table "right now" he could begin to use it sooner. So the table came—a handsome combination affair, suitable to all games—and was set in place. That morning, when the dictation ended, he said:

"Have you any special place to lunch, to-day?"

I replied that I had not.

"Lunch here," he said, "and we 'll try the new billiard-table."

I acknowledged that I had never played more than a few games of pool, and those long ago.

"No matter," he said; "the poorer you play, the better I shall like it."

So I remained for luncheon; and when it was over, we began the first game ever played on the "Christmas" table. He taught me a game in which caroms and pockets both counted, and he gave me heavy odds. He beat me, but it was a riotous, rollicking game, the beginning of a closer relation between us. We played most of the afternoon, and he suggested that I "come back in the evening and play some more." I did so, and the game lasted till after midnight. I had beginner's luck, and it kept him working feverishly to win. Once when I had made a great fluke, a carom followed by most of the balls falling into the pockets, he said, "When you pick up that cue, this table drips at every pore."

The morning dictations became a secondary interest. Like a boy, he was looking forward to the afternoon of play, and it seemed never to come quickly enough to suit him. I remained regularly for luncheon, and he was inclined to cut the courses short that we might the sooner get upstairs for billiards. He did not eat the midday meal himself, but he would come down and walk about the dining-room, talking steadily that marvelous, marvelous talk which little by little I trained myself to remember, though never with complete success. He was only killing time, and I remember once, when he had been earnestly discussing some deep question, he suddenly noticed that the luncheon was ending.

"Now," he said, "we will proceed to more serious matters—it's your—shot."

He was not an even-tempered player. When the game went steadily against him, he was likely to become critical, even fault-finding, in his remarks. Then, presently, he would be seized with remorse and become over-gentle and attentive, placing the balls as I knocked them into the pock-

ets, hurrying to render this service. I wished he would not do it. It distressed me that he should humble himself. I was willing that he should lose his temper, that he should be even harsh if he felt so inclined—his age, his position, his genius gave him special privileges. Yet I am glad, as I remember it now, that the other side revealed itself, for it completes the sum of his humanity. Once in a burst of exasperation he made such an onslaught on the balls that he landed one or two of them on the floor. I gathered them up, and we went on playing as if nothing had happened, only he was very gentle and sweet, like a summer meadow when the storm has passed by. Presently he said:

"This is a most amusing game. When you play badly, it amuses me; and when I play badly and lose my temper, it certainly must amuse you."

It was but natural that friendship should grow under such conditions. Our disparity of ages and gifts no longer mattered. The pleasant land of play is a democracy where such things do not count.

We celebrated his seventy-first birthday by playing billiards all day. He invented a new game for the occasion, and added a new rule for it with almost every shot. It happened that no other member of the family was at home—ill health had banished every one, even the secretary. Flowers, telegrams, and congratulations came, and a string of callers. He saw no one but a few intimate friends.

We were entirely alone for dinner, and I felt the great honor of being his only guest on such an occasion. To celebrate the anniversary of a year before, the flower of his profession had assembled to do him honor. Once, between the courses, when he rose, as was his habit, to walk about, he wandered into the drawing-room, and, seating himself at the orchestrelle, began to play the beautiful "Flower Song" from "Faust." It was a thing I had not seen him do before, and I never saw him do it again.

He was in his loveliest humor all that day and evening, and at night, when we stopped playing, he said:

"I have never had a pleasanter day at this game."

I answered, "I hope ten years from to-night we shall be playing it."

"Yes," he said, "still playing the best game on earth."

I ACCOMPANIED him on a trip he made to Washington in the interest of copyright. Speaker "Uncle Joe" Cannon lent us his private room in the Capitol, and there all one afternoon Mark

Twain received congressmen, and, in an atmosphere blue with cigar smoke, preached the gospel of copyright. It was a historic trip, and for me an eventful one, for it was on the way back to New York that Mark Twain suggested that I take up residence in his home. There was a room going to waste, he said, and I would be handier for the early and late billiard sessions. I accepted, of course.

Looking back, now, I see pretty vividly three quite distinct pictures. One of them, the rich red interior of the billiard-room, with the brilliant green square in the center on which the gay balls are rolling, and bent over it his luminous white figure in the instant of play. Then there is the long, lighted drawing-room, with the same figure stretched on a couch in the corner, drowsily smoking while the rich organ tones summon for him scenes and faces which the others do not see. Sometimes he rose, pacing the length of the parlors, but oftener he lay among the cushions, the light flooding his white hair and dress, heightening his brilliant coloring. He had taken up the fashion of wearing white altogether at this time. Black, he said, reminded him of his funerals.

The third picture is that of the dinner-table, always beautifully laid, and always a shrine of wisdom when he was there. He did not always talk, but he often did, and I see him clearest, his face alive with interest, presenting some new angle of thought in his vivid, inimitable speech. These are pictures that will not fade from my memory. How I wish the marvelous things he said could all have been set down! I preserved as many of them as I could, and in time trained myself to recall portions of his exact phrasing. But even so, they seemed never quite as he had said them. They lacked the breath of his personality. His dinner-table talk was likely to be political, scientific, philosophic. He often discussed aspects of astronomy, which was a passion with him.

He did not return to Dublin the next summer, but took a house at Tuxedo, nearer New York. I did not go there with him, for in the spring it was agreed that I should make a pilgrimage to the Mississippi and the Pacific Coast to see those few still remaining who had known Mark Twain in his youth. John Briggs was alive, also Horace Bixby, "Joe" Goodman, Steve and Jim Gillis, and there were a few others.

It was a trip taken none too soon. John Briggs, a gentle-hearted old man who sat by his fire, and through one afternoon told me of the happy days along the river front from the cave to Holliday's Hill, did not reach the end of the year. Horace

Bixby at eighty-one was still young, and piloting a government snag-boat. Neither was Joseph Goodman old by any means, but Jim Gillis was near his end, and Steve Gillis was an invalid, who said:

"Tell Sam I 'm going to die pretty soon, but that I love him; that I 've loved him all my life, and I 'll love him till I die."

ON my return I found Mark Twain elated: he had been invited to England to receive the degree of Literary Doctor from the Oxford University. It is the highest scholastic honorary degree: and to come back, as I had, from following the early wanderings of the barefoot truant of Hannibal, only to find him about to be officially knighted by the world's most venerable institution of learning, seemed rather the most surprising chapter even of his marvelous fairy tale. If *Tom Sawyer* had owned the magic wand, he would hardly have produced anything as startling as that.

He sailed on the eighth of June, 1907, exactly forty years from the day he had sailed on the *Quaker City* to win his greater fame. I did not accompany him. He took with him a secretary to make notes, and my affairs held me in America. He was absent six weeks, and no attentions that England had ever paid him before could compare with her lavish welcome during this visit. His reception was really national. He was banqueted by the greatest clubs of London, he was received with special favor at the king's garden-party, he traveled by a royal train, crowds gathered everywhere to see him pass. At Oxford, when he appeared on the street, the name Mark Twain ran up and down like a cry of fire, and the people came running. When he appeared

on the stage at the Sheldonian Theater to receive his degree, clad in his doctor's robe of scarlet and gray, there arose a great tumult—the shouting of the undergraduates for the boy who had been *Tom Sawyer* and had played with *Huckleberry Finn*. The papers next day spoke of his reception as a "cyclone," surpassing any other wel-



MARK TWAIN AND HIS BIOGRAPHER PLAYING BILLIARDS.

come, though Rudyard Kipling was one of those who received degrees on that occasion, as well as Whitelaw Reid and other famous men.

Perhaps the most distinguished social honor paid to Mark Twain at this time was the dinner given him by the staff of London "Punch," in the historic "Punch" editorial rooms on Bouverie Street. No other foreigner had ever been invited to that sacred board where Thackeray had sat, and Douglas Jerrold, and others of the great departed. "Punch" had already saluted him with a front-page cartoon, and at this dinner the original drawing was presented to him by the editor's little daughter, Joy Agnew.

The Oxford degree and the splendid homage paid him by England at large became, as it were, the crowning episode of Mark Twain's career. I think he realized this, although he did not speak of it; indeed, he had very little to say of the whole matter. I telephoned a greeting when I knew that he had arrived, and was summoned to "come down and play billiards." I confess I went with a good deal of awe, prepared to sit in silence and listen to the tale of the returning hero. But when I arrived, he was already in the billiard-room, knocking the balls about—his coat off, for it was a hot night. As I entered he said: "Get your cue—I've been inventing a new game."

That was all. The pageant was over, the curtain was rung down. Business was resumed at the old stand.

CHAPTER XLII

THE NEW HOME IN REDDING

THERE followed another winter during which I was much with Mark Twain, though a part of it he spent with Mr. Rogers in Bermuda, that pretty island resort which both men loved. Then came spring again, and June, and with it Mark Twain's removal to his newly built home, "Stormfield," at Redding, Connecticut.

The house had been under construction for a year. He had never seen it—never even seen the land I had bought for him. He even preferred not to look at any plans or ideas for decoration.

"When the house is finished and furnished, and the cat is purring on the hearth, it will be time enough for me to see it," he had said more than once.

He had only specified that the rooms should be large, and that the billiard-room should be red. His billiard-rooms thus far had been of that color, and their memory was associated in his mind with enjoyment and comfort. He detested details of preparation; and then, too, he looked forward to the dramatic surprise of walking into a home that had been conjured into existence as with a word.

It was the eighteenth of June, 1908, that he finally took possession. The Fifth Avenue house was not dismantled, for it was the plan then to use Stormfield only as a summer place. But the servants with one exception had been transferred to Redding, and Mark Twain and I remained alone, though not lonely, in the city house, playing billiards most of the time, and being as hilarious as we pleased, for there was nobody to disturb. I think he hardly mentioned the new home during that time. He had never seen even a photograph of the place, and I confess I had

moments of anxiety, for I had selected the site, and had been more or less concerned in it otherwise, though John Howells was wholly responsible for the building. I did not really worry, for I knew how beautiful and peaceful it all was.

The morning of the eighteenth was bright and sunny and cool. Mark Twain was up and shaved by six o'clock in order to be in time. The train did not leave until four in the afternoon, but the last billiards in town must begin early and suffer no interruption. We were still playing when, about three, word was brought up that the cab was waiting. Arrived at the station, a group collected, reporters and others, to speed him to his new home. Some of the reporters came along.

The scenery was at its best that day, and he spoke of it approvingly. The hour and a half required to cover the sixty miles' distance seemed short. The train porters came to carry out the bags. He drew from his pocket a great handful of silver.

"Give them something," he said; "give everybody liberally that does any service."

There was a sort of open-air reception in waiting—a varied assemblage of vehicles, festooned with flowers, had gathered to offer gallant country welcome. It was a perfect June evening, still and dreamlike; there seemed a spell of silence on everything. The people did not cheer—they smiled and waved to the white figure, and he smiled and waved reply, but there was no noise. It was like a scene in a cinema.

His carriage led away on the three-mile drive to the house on the hilltop, and the floral procession fell in behind. Hillsides were green, fields were white with daisies, dogwood and laurel shone among the trees. He was very quiet as we drove along. Once with gentle humor, looking out over a white daisy-field, he said:

"That is buckwheat. I always recognize buckwheat when I see it. I wish I knew as much about other things as I know about buckwheat."

The clear running brooks, a swift-flowing river, a tumbling cascade where we climbed a hill, all came in for his approval. Then we were at the lane that led to his new home, and the procession behind dropped away. The carriage ascended still higher, and a view opened across the Saugatuck Valley, with its nestling village, and church-spire, and farm-houses, and beyond them the distant hills. Then came the house—simple in design, but beautiful—an Italian villa, such as he had known in Florence, adapted here to American climate and needs.

At the entrance his domestic staff waited to greet him, and presently he stepped across the threshold and stood in his own home for the first

time in seventeen years. Nothing was lacking—it was as finished, as completely furnished, as if he had occupied it for a lifetime. No one spoke immediately, but when his eyes had taken in the harmony of the place, with its restful, homelike comfort, and followed through the open French

and undisturbed comfort of Stormfield came to him at the right time of life. His day of being the "Belle of New York" was over. Now and then he attended some great dinner, but always under protest, and finally he refused to go at all. He had much company during that first summer



STORMFIELD—MARK TWAIN'S HOME AT REDDING, CONNECTICUT.

windows to the distant vista of tree-tops and farmsides and blue hills, he said, very gently:

"How beautiful it all is. I did not think it could be as beautiful as this." And later, when he had seen all of the apartments: "It is a perfect house—perfect, so far as I can see, in every detail. It might have been here always."

There were guests that first evening—a small home dinner-party—and a little later at the foot of the garden some fireworks were set off by neighbors inspired by Dan Beard, who had recently located in Redding. Mark Twain, watching the rockets that announced his arrival, said gently:

"I wonder why they go to so much trouble for me. I never go to any trouble for anybody."

The evening closed with billiards,—hilarious games,—and when at midnight the cues were set in the rack, no one could say that Mark Twain's first day in his new home had not been a happy one.

Mark Twain loved Stormfield. Almost immediately he gave up the idea of going back to New York for the winter, and I think he never entered the Fifth Avenue house again. The quiet

—old friends, and, now and again, young people, of whom he was always fond. Of course, there were several cats at Stormfield, and these really owned the premises. The kittens scampered about the billiard-table after the balls, even when the game was in progress, giving all sorts of new angles to the shots. This delighted him, and he would not for anything have discommoded or removed one of those furry hazards.

My own house was a little more than half a mile away, our lands joining, and daily I went up to visit him—to play billiards, or to take a walk across the fields. There was a stenographer in the neighborhood, and he continued his dictations, but not regularly. He wrote, too, now and then, and finished the little book called "Is Shakespeare Dead?"

Winter came. The walks were fewer, and there was even more company; the house was gay and the billiard games protracted. In February I made a trip to Europe and the Mediterranean, to go over some of his ground there. Returning in April I found him somewhat changed. It was not that he had grown older or less full of life, but only less active, less eager

for gay company; and he no longer dictated, or very rarely. His daughter Clara was there, while Jean, who had been in a health resort, was coming home to act as his secretary. All this made him very happy.

We resumed our games, our talks, and our long walks across the fields. There were few guests, and we were together most of the day and evening. How beautiful the memory of it all is now! To me, of course, nothing can ever be like it again in this world.

Mark Twain walked slowly these days. Early in the summer there appeared indications of the heart trouble that less than a year later would bring the end. His doctor advised diminished smoking, and forbade the old habit of lightly skipping up and down stairs. The trouble was with the heart muscles, and at times there came severe, deadly pains in his breast, but for the most part he did not suffer.



JEAN CLEMENS.

How many things we talked of! Life, death, the future—all the things of which

we know so little and love so much to talk about. Astronomy, as I have said, was one of his favorite subjects. Neither of us had any real knowledge of the matter, which made its great facts all the more thrilling. The thought that the nearest fixed star was twenty-five trillions of miles away—two hundred and fifty thousand times the distance to our own remote sun—gave him a sort of splendid thrill. He would figure out those great measurements of space, cover sheets of paper with his sums; but he was not a good mathematician, and the answers were generally wrong. Comets, in particular, interested him, and one day he said:

"I came in with Halley's comet in 1835. It is coming again next year, and I expect to go out with it. It will be the greatest disappointment of my life if I don't go out with Halley's comet."

He looked so strong and full of color and vitality! One could not believe that his words held a prophecy. Yet the pains recurred with increasing frequency and severity; his malady was making progress. And how bravely he bore it all! He never complained, never bewailed.

CLARA CLEMENS was married that autumn to Ossip Gabrilowitch, the Russian pianist, and presently sailed for Europe, where they would

make their home. Jean Clemens was now head of the house, and, what with her various duties and poor health, her burden was too heavy. I tried to relieve her of a share of the secretarial work, but she was ambitious and faithful. Still, her condition did not seem critical.

I stayed at Stormfield, now, most of the time—nights as well as days—for the house was rather lonely and the dull weather had come. In November Mark Twain had an impulse to go to Bermuda, and we spent a month in the warm light of that summer island, returning a week before the Christmas holidays. And just then came Mark Twain's last great tragedy—the death of his daughter Jean.

The holidays had added heavily to Jean's labors. Out of her generous heart she had planned gifts for everybody, had hurried to and from the city for her purchases, and in the loggia set up a beautiful Christmas tree. Meantime, she had contracted a heavy cold. On the morning of December twenty-fourth she died suddenly of heart failure.

CHAPTER XLIII

DAYS IN BERMUDA

TEN days later Mark Twain returned to Bermuda, accompanied only by a valet. He had asked me if we would be willing to close our home for the winter and come to Stormfield, so that the place might be ready any time for his return. We came, of course, for there was no thought other than for his comfort. He did not go to a hotel in Bermuda, but to the home of Vice-consul Allen, where he had visited before. The Allens were devoted to him, and gave him such care as no hotel could offer.

Bermuda agreed with Mark Twain, and for a time there he gained in strength and spirits, and recovered much of his old manner. He wrote me almost daily, generally with good reports of his health and doings, and with playful counsel and suggestions. Then, by and by, he did not write with his own hand, but through his newly appointed "secretary," Mr. Allen's young daughter Helen, of whom he was very fond. The letters however were still gay. Once he said:

While the matter is in my mind I will remark that, if you ever send me another letter which is not paged at the top, I will write you with my own hand, so that I may use utter freedom and without embarrassment the kind of words which alone can describe such a criminal.

He had made no mention so far of his health, but near the end of March he wrote that he was coming home, if the pains did not "mend their ways pretty considerable." "I do not want to



MARK TWAIN ENTERTAINING THREE OF HIS YOUNG FRIENDS AT STORMFIELD.

die here," he said; "I am growing more and more particular about the place." A week later brought another alarming letter, also one from Mr. Allen, who frankly stated that matters had become very serious indeed. I went to New York and sailed the next morning, cabling the Gabrilowitches to come without delay.

I sent no word to Bermuda that I was coming, and when I arrived, he was not expecting me.

"Why," he said, holding out his hand, "you did not tell us you were coming."

"No," I said, "it is rather sudden. I did n't quite like the sound of your last letters."

"But those were not serious. You should n't have come on my account."

I said then that I had come on my own account, that I had felt the need of recreation, and had decided to run down and come home with him.

"That 's—very—good," he said, in his slow, gentle fashion. "Now I'm glad to see you."

His breakfast came in, and he ate with appetite. I had thought him thin and pale, at first sight, but his color had come back now, and his eyes were bright. He told me of the fierce attacks of the pain, and how he had been given hypodermic injections, which he amusingly termed "hypnotic injunctions" and "the sub-cutaneous." From Mr. and Mrs. Allen I learned how slender

had been his chances, and how uncertain were the days ahead. Mr. Allen had already engaged passage home for April 12th.

He had written very little in Bermuda—his last work being a chapter of amusing "Advice," for me as he confessed—what I was to do upon reaching the gate of which St. Peter is said to keep the key. As it is the last writing he ever did, and because it is characteristic, one or two paragraphs may be admitted here:

Upon arrival, do not speak to St. Peter until spoken to. It is not your place to begin.

Do not begin any remark with "Say."

When applying for a ticket, avoid trying to make conversation. If you *must* talk, let the weather alone. . . .

You can ask him for his autograph,—there is no harm in that,—but be careful and don't remark that it is one of the penalties of greatness. He has heard *that* before.

There were several pages of this counsel.

I SPENT most of each day with him, merely sitting by the bed and reading. I noticed when he slept that his breathing was difficult, and I could see that he did not improve, but often he was gay and liked the entire family to gather about and be merry. It was only a few days before we sailed that the severe attacks returned. Then followed bad nights; but respite came, and we

sailed on the twelfth as arranged. The Allen home stands on the water, and Mr. Allen had chartered a tug to take us to the ship.

As long as I remember anything, I shall remember the forty-eight hours of that homeward voyage. He was comfortable, at first, and then we ran into the humid, oppressive air of the Gulf Stream, and he could not breathe. It seemed to me that the end might come at any moment, and this thought was in his own mind; but he had no dread, and his sense of humor did not fail. Once, when the ship rolled and his hat fell from the hook and made the circuit of the cabin floor, he said, "The ship is passing the hat."

I had been instructed in the use of the hypodermic needle and from time to time gave him the "hypnotic injunction," as he still called it. But it did not afford him entire relief. He could remain in any position but a little while. Yet he never complained, and thought only of the trouble he might be making. Once he said:

"I am sorry for you, Paine, but I can't help it—I can't hurry this dying business."

And a little later—

"Oh, it is such a mystery, and it takes so long!"

Relatives, physicians, and news-gatherers were at the dock to welcome him. Revived by the cool fresh air of the north, he had slept for several hours, and was seemingly much better. A special compartment on the same train that had taken us first to Redding took us there now, his physicians in attendance. He did not seem to mind the trip, or the drive home.

Arriving at Stormfield, he stepped unassisted from the carriage to greet the members of the household, and with all his old courtliness offered each his hand. Then in a canvas chair we had brought, we carried him upstairs to his room—the big, beautiful room that looked out to the sunset hills. This was Thursday evening, April 14, 1910.

MARK TWAIN lived just a week from that day and hour. For a time he seemed full of life, talked freely, and suffered little. Clara and Ossip Gabrilowitch arrived on Saturday and found him cheerful, quite like himself. At intervals he read a little. His volume of Carlyle lay on the bed beside him, and he would pick it up and read a page or a paragraph. Sometimes when I saw him thus,—the high color still in his face,

the clear light in his eyes,—I said: "It is not reality. He is not going to die."

But by Wednesday of the following week it was evident that the end was near. We did not know it then, but the mysterious messenger of his birth-year, Halley's Comet, became visible that night in the sky.

On Thursday morning, the twenty-first, his mind was still fairly clear, and he read a little from one of the volumes on his bed. By Clara he sent word that he wished to see me, and when I came in, he spoke of two unfinished manuscripts which he wished me to "throw away" as he briefly expressed it, for his words were few now, and uncertain. I assured him that I would take care of them, and he pressed my hand. It was his last word to me. During the afternoon, while Clara stood by him, he sank into a doze, and from it passed into a deeper slumber and did not heed us any more.

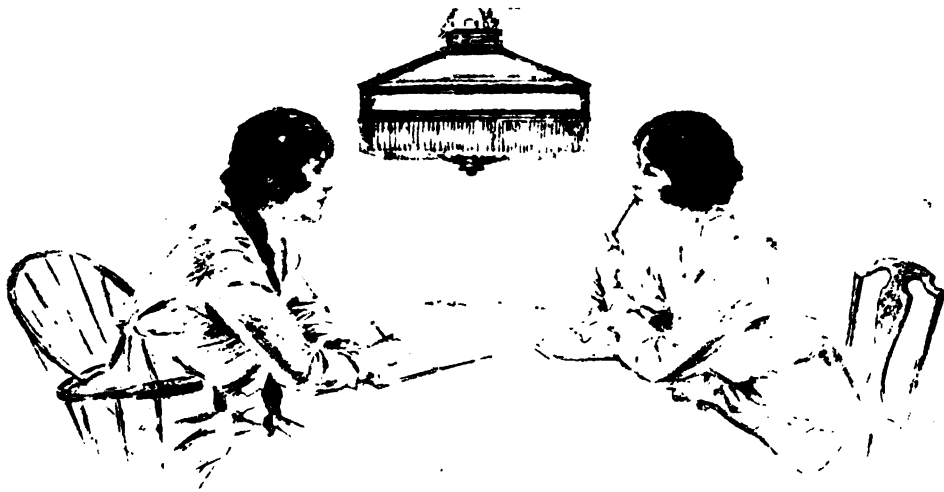
Through that peaceful spring afternoon the life-wave ebbed lower and lower. It was about half past six, and the sun lay just on the horizon, when the noble head turned a little to one side, there was a fluttering sigh, and the breath that had been unceasing for seventy-four tumultuous years had stopped forever.

In the Brick Church, New York, Mark Twain, dressed in the white he loved so well, lay, with the nobility of death upon him, while a multitude of those who loved him passed by and looked at his face for the last time. Flowers in profusion were banked about him, but on the casket lay a single wreath which Dan Beard and his wife had woven from the laurel which grows on Stormfield hill. He was never more beautiful than as he lay there, and it was an impressive scene to see those thousands file by, regard him for a moment, gravely, thoughtfully, and pass on. All sorts were there, rich and poor; some crossed themselves, some saluted, some paused a little to take a closer look.

That night we went with him to Elmira, and next day he lay in those stately parlors that had seen his wedding-day, and where little Langdon and Susy had lain, and Mrs. Clemens, and then Jean only a little while before.

The worn-out body had reached the journey's end; but his spirit had never grown old, and to-day, still young, it continues to cheer and comfort a tired world.

THE END.



THE APPLE VENTURE

BY GEORGETTE PARKS ROPER

THE twins, seated at the round table, were busily figuring under the lamplight. After much biting of pencils and knitting of brows they looked up.

"A hundred and fifty," Nora announced.

"I make it a hundred and seventy-five," Ruth said as she finished her calculations.

"Five dollars for board for twenty weeks makes a hundred," Nora read from her paper, and Ruth nodded agreement.

"One hundred for tuition," Nora continued. "Twenty-five for winter clothes. Our suits will do, but we shall each have to have a new dress, several waists, and a hat. I need boots, and you 'll have to get an umbrella. We can't share one when we 're going to different classes. Round-trip fares once a week, twenty dollars. Allow five dollars for extras, and there you are."

"You 've forgotten laundry, lunches, and carfare when it rains badly,—remember we 'll be a mile away,—and extra books and pads and pencils. Your five dollars won't begin to cover it all. It will take *at least* a hundred and seventy-five over and above Uncle William's hundred."

Nora's face fell. "I wish Uncle William," she began solemnly, but Ruth interrupted her:

"So do I. I 've wished it a thousand times, whatever it is. But wishing won't do. *We* must do. We *must* get that money and take the mid-winter course at Lynton, or we sha'n't get those positions in Boston next year. We 'll stick here and get dinky little district-schools, and end our days like the Kimball sisters on the hill."

"No," said Nora, firmly; "I won't!"

"Neither will I!" said Ruth. "But how?"

They stared at each other. Just short of seventeen, brown-haired and brown-eyed, resolute of chin, slender and strong, they faced a problem that might well have daunted older and wiser heads. Their father, the minister in the little town of Hillover, had contrived to give them a good high-school education and considerable tutoring at home, so that they were more than able to take a graduate course at the college of Lynton, a short distance away. With even a three-months' diploma from this institution their mother's friend, Miss Macon, who conducted a highly successful girls' boarding-school in Boston, had promised them positions as junior teachers the following year, when they would be eighteen; and once in Boston, the twins felt that their fortunes were made. No more patching and darning for their mother, no more going without coveted books for their father! A college education for the Pickle (the family name for their younger brother), and for themselves unlimited possibilities in the way of theaters, concerts, books, and people. Such were the bright dreams that floated before them if only those diplomas could be secured, for the parents who intrusted their daughters to Miss Macon expected only college graduates on the staff, even for the pupils in the youngest classes.

And there was no money wherewith to get those diplomas. Or rather, there was not enough

money. Uncle William, godfather to the twins, sent them every year a hundred dollars apiece, and beyond that utterly refused to interest himself in them, although he was without chick or child of his own. He thoroughly disapproved of his sister-in-law's marriage to the impecunious clergyman, and as she had been practically brought up by her older sister, who had married *him*, Uncle William considered that he had guardian rights over her. This year the two hundred dollars, which they knew would be sent punctually the first of October as usual, would pay for their tuition if only they could provide the rest.

They gazed thoughtfully into space, and Nora reached out a hand toward the bowl of apples at her elbow. Still pondering deeply, she bit into the crimson rind. As she did so she slowly raised her head and stared at her sister as though transfixed.

"What is it?" Ruth said wonderingly. "Oh, Nora! I believe you have an idea! Please don't choke to death before you tell me. Oh, dear! it will be ages before you can speak now; you've swallowed it the wrong way! Apples—diplomas—where is the connection?"

"M-money," stammered Nora, now as crimson as the apple as she coughed and laughed.

"Money—apples—diplomas—but we have n't any apples.—Nora, you genius, I believe you've struck it!"

"Don't guess, *plcse* don't guess!" Nora implored huskily. "I'll be all right in a minute. There; now I can talk. You know, Father said at supper that Mr. Goodwin was moving to the big apple-farm his brother had left him at the Cross-roads, and that the new tenants were n't coming to this place of his till January. That means these apples here will go to waste because labor's too high to make it worth while to hire pickers, and he'll be too busy with the big crop to bother with these. They do a tremendous business there, you know. Now, why can't we—"

"Ask him what he'll take for the orchard this year?" Ruth chimed in excitedly. "Nora, *do* you suppose we could pick all those trees?"

"Why not? I've heard they yield about a hundred barrels, and we ought to be able to pick four barrels a day. We can begin the middle of this month, and we'll have the crop in before the frosts come, the middle of October. We ought to make a good thing of it. Let's figure it out."

Ruth, the mathematician, picked up her pencil again and bent over the pad.

"Most of them are Baldwins, and I remember those were selling last year at three-seventy-five. A hundred barrels would be three hundred and seventy-five dollars. Deduct fifteen dol-

lars for barrels—I know Mr. Cobb would let us have them at fifteen cents apiece, because Father did so much for him last year when they had the accident at the mill; that leaves three hundred and sixty. Suppose we pay fifty dollars for the orchard; that leaves three hundred and ten—a hundred and fifty-five apiece! Oh, we'll make up the rest somehow! Nora, you're a genius!"

Their eyes were sparkling and full of hope as they stole out of the side door to consult Mr. Goodwin, who lived near by.

"Not a word to the family till the deal is closed!" Ruth cautioned. "Let's surprise them joyfully for once."

First, however, came a joyful surprise for them; for when they spoke to Mr. Goodwin, he was so pleased with their enterprise that he flatly refused to put a price on his orchard, declaring that he had expected to lose the entire crop and that he was only too glad "the parsonage gals" should profit by it. It was not until Ruth had convinced him that their parents would not hear of their accepting such a gift that he reluctantly consented to take payment. With considerable diffidence they offered him fifty cents on a barrel or fifty dollars for the entire output, but he told them that twenty-five dollars would more than pay him for that year's spraying and pruning, and that they could take it or leave it at that price. When they had gratefully accepted, he added that his head man, Andrew, would be idle while the move to the new farm was being made, and that he might spend two or three days helping them to get started.

"Better not sell everything together," he warned them. "You'll git a higher price for the first week's pickings if they're good and ripe. Then there's three or four trees o' blue pear-mains that had n't ought to fetch a mite less'n four-fifty a barrel. Baldwins might bring four, an' then ag'in they might n't bring better'n three-fifty; all depends on how heavy the crop is. Jest now it looks's if't would be a pretty good year on account o' them heavy frosts in Oregon, but you can't never tell. You write to these places—" he handed them the addresses of several dealers in near-by towns—"an'tell 'em that you'll have 'bout ninety barrels o' Baldwins, an' mebbe a dozen or so of early fruit, an' 'bout twenty boxes o' blue pearmains, an' ask 'em to give you a price on 'em delivered at the train. They'll let you know when their inspector's goin' through these parts, an' he'll take a look at the trees to see the crop's what you say, but you don't need to worry a mite. Everything's been sprayed reg'lar an' you ain't goin' to lose more'n a barrellful in the whole crop."

They thanked him over and over again and sped home, stopping every few steps to dance with glee. Breathlessly they ran into their father's study and unfolded their plan. They had expected to be met with some objections, but both their parents were delighted with the idea, although their mother looked worried over possible falls.

"You will be careful, dears, won't you?" she pleaded. "You could hurt yourselves badly!"



"STOPPING EVERY FEW STEPS TO DANCE WITH GLEE."

"Remember how a broken leg would cut into our profits," Nora agreed. "We'll spread safety-nets below the trees and pad the branches with down cushions rather than take a risk. Trust us to look after our precious selves!"

The next week passed quickly in making preparations for the great venture. The most promising letter among those received from the dealers was answered, with a request to have their inspector look at the trees, after which, they understood, a definite offer could be made. The barrels were secured at the bargain price of twelve and a half cents apiece, and a dozen strong

boxes were made ready for the aristocratic fruit that was to be wrapped in tissue-paper and sold at a fancy price. The big barn was full of the odor of fresh lumber, and Ruth's heart sank as she gazed at the gaping mouths. She confessed that she had never realized how big a barrel was and how small an apple, until she tried to fill one with the other. A couple of old gymnasium-suits were put in order for the climbing, and brightly colored bandanas were purchased to tie around their hair to protect it from the twigs. They had set the tenth of September for the work to begin, and Sunday, the ninth, dragged incredibly while they watched the weather. If it should rain on their first attempts, they felt the fates would be unkind indeed.

But Monday morning dawned bright and clear, with a snap in the air which would have rejoiced the heart even of a laggard. As soon as breakfast was over their mother bade them be off, saying she would see to their household tasks.

"Lizzie and I can manage alone for the next few weeks," she assured them. "That shall be our contribution to the fund."

"Is n't she the kindest lady in the world?" Nora sang, giving her mother a regular bear-hug. "Fancy the joy of climbing trees instead of making beds and dusting."

They hurried to the orchard to find Andrew already installed among the branches and quite in charge of the situation. As they had been deciding which should have the honor to mount the first tree and pick the first basketful, they protested loudly; but Andrew, a long, lanky, and imperturbable person, took no notice of their complaints.

"Guess you 'll have enough o' this pesky climb-in' after a while," he remarked. "Goodwin says as how I should help ye with these here early ones. Better git 'em off by to-morrer night. Now, you two gals, you set right down an' sort 'em out as I hand 'em to ye in the baskets. Ef there 's any sp'iled ones, throw 'em in that heap; they 'll do for cider. The runts kin go in that barrel an' be sold with the late ones, an' the best kin be put in them barrels over there. Be real careful now an' don't bruise 'em."

They saw the good sense of his instructions, and did as he told them, but Nora whispered rebelliously to Ruth that she was glad they were n't to have him more than two days! Later on they changed their minds when they saw how he worked. Without apparent haste he could fill the half-bushel basket that hung on the limb below him as fast as they could sort it. His long arms reached to the highest branches, and his longer legs spanned the widest gaps. By the end of the

second day he had picked nearly twelve barrels, for Andrew was a master-picker and could command four dollars a day when he "hired out." Moreover, he taught them the proper way to shake down and head up the loaded barrels, and he saw the first consignment off to the city before he wished them good luck and departed.

"He really is an angel," Ruth said, gazing gratefully after his shambling figure as it went down the village street; "but all the same it's more exciting to be by ourselves."

Up into the branches went Nora the following morning, Ruth having insisted that hers should be the honor as hers had been the idea. Cozily established in a crotch, she carefully dropped the fruit into the swinging basket until it was ready to be unhooked and lowered to Ruth, who picked out the poor fruit and emptied the good into the barrel, while Nora picked and refilled. All around the tree they worked, Nora venturing higher and higher until Ruth held her breath in fear. One of Nora's feet, encased in a sneaker—the ideal shoe for climbing—was wedged against a bole, and one knee was precariously resting on a dead branch that kept cracking ominously, while Nora herself, spread-eagled between the branches, was picking with furious haste, wondering at every crack how long she could safely remain. By the end of the week such incidents were not even noticed, so many precarious positions had been successfully held and conquered; for not a single apple was allowed to escape, no matter how inaccessible it appeared to be. When it could not be reached by hand, the apple-picker was brought into service, and the fruit was deftly twisted off. But this was slow and tiring work, much conducive to cricks in the neck and the stemming of branches, which, for the sake of Mr. Goodwin's trees, they were reluctant to do. It was at the end of that first day's work that they began to appreciate Andrew. Aching in every joint, bruised and scratched and tired out, with not quite three barrels to their credit, they fell asleep right after supper out of sheer weariness, and woke to realize that at that rate it would take five or six weeks to get the crop in. Weary and stiff, they began to dress in gloomy silence until Nora, looking at Ruth's painful movements, burst out laughing.

"Cheer up!" she said. "We're not in as good training as we thought, but we're bound to be soon. It's no worse than the first tennis of the season."

"And we're making money," Ruth added. "Come along; we mustn't let them see how sore we are."

Once among the trees, there was no keen com-

petition for the post of climber, but after a while they began to limber up and warm to their work. Bruises were forgotten and stiffness melted away as the sun got higher. Up among the branches the world seemed to drop away and leave one alone with the round, red fruit; the soft and steady *thump, thump* into the basket became hypnotic, banishing worries and misgivings. They picked five barrels that day, thanks to some easy trees, and their spirits rose. It was Ruth who discovered, that day, a new source of profit.

"I saw the Bayley boys picking up the windfalls to-day," she told Nora. "I asked them what they were going to do with them, and they said they put them into bags and sold them at the train to men who buy them for the cider-mills. They get twenty-five cents a bag. Would n't that be worth while for us?"

"We have n't time," Nora objected. "We'll barely get through with the trees as it is."

"I know," said Ruth; "but I thought we might get the Pickle to do it by giving him five cents a bag. Do you think he would?"

"He might," Nora said doubtfully. "We'll try."

That evening the Pickle was approached on the subject, but proved reluctant to undertake anything resembling work. He said he was very busy just then—had some things to do with "the fellows"—"perhaps for *ten* cents a bag—" But his father, entering, put an end to his bargaining.

"My son," he said, "you will go out and help your sisters in any way they wish. Perhaps you don't know that they have been planning to help you through college when the time comes. The least you can do is to pick up these windfalls. Don't let me hear any more of being paid, but try to behave as a scholar and a gentleman should."

Far from being abashed, the Pickle grinned cheerfully.

"All right," he said. "I'll get the work done; but I bet I make a good thing out of it!" a remark which, fortunately for him, his father missed, having passed out of ear-shot.

The next day and every day thereafter, when school-hours were over, the Pickle appeared with a band of boys who cleared the ground of windfalls and rejected apples and sold them to the men on the apple-trains, turning over to the twins nineteen cents for every sackful.

"I guess you'd rather have nineteen cents for all these than twenty-five for what I could pick up alone," said the Pickle, and his sisters heartily agreed. They never discovered what arrangement he made with his followers, but it was evidently a profitable one, as he soon blossomed out in new ties and various school-boy treasures, and was even heard to jingle pennies in his pockets.

"Perhaps," said Ruth, hopefully, "he will turn out to be a financier and restore the family fortunes."

As they were setting out on the fourth morning their mother received a telegram which made her laugh as she read it.

"I was writing my monthly letter to your Uncle William," she said, "and I told him about your work. Do you think he approves? Here is his answer":

Thankful some business enterprise in family. Will pay for broken bones.

"I wonder," said Nora, thoughtfully, "which is the most expensive and least painful bone to break?"

On rainy days, when they sallied forth clad in oilskins and rubber boots; on windy days, when the branches whipped across their faces and blinded them and the trees creaked and swayed like ships at sea; on hot noons, when energy flagged and nothing but hope spurred them on; on frosty mornings, when fingers tingled and the red blood glowed in their cheeks; on long, weary afternoons, when they toiled with grim determination, in spite of aching backs and tired feet; day in and day out the twins stuck to it. When they picked the blue pears, their mother established herself at a table in the orchard, wrapped each apple in tissue-paper, and placed it carefully in the box. On Saturday afternoons their father came out to help, loading the full barrels into the cart and driving them to the barn, which was now filled with the odor of the fragrant fruit. Twice a week this had to be done; and when their father could not help them, they placed the empty barrels on the tail of the cart and emptied the bushel baskets into them. At first it took both of them to lift these loads, but after a while they caught the trick of hoisting them up and turning them gently over, letting the apples trickle down, unhurt. At the barn they set up a plank for a runway, and whirled the barrels down as deftly as if they were strong men instead of slender girls with only wit and courage to supplement their muscle. But they had many anxious moments. Suppose the frost overtook them? Suppose the bottom fell out of the

market, and all their labor were to be lost? They pondered the risks and counted the profits until they felt that to fall short of the needed amount would be equal to complete failure. Once Ruth



AT WORK IN THE ORCHARD.

slipped and came to the ground with a bump that laid her up for two precious days, while Nora toiled alone. Many were the bruises and cuts their mother bound up, and many were the hard hours; but when nearly a month had passed without accidents and only a few more trees remained to be picked, their spirits soared. These last

trees were all on the hilltop and it seemed to Ruth, standing on a topmost branch, as though all the kingdoms of the earth were unrolled before her. At her feet lay the valley, hazily blue, backed by miles of hillside clad in gorgeous gold and scarlet, with the silver ribbon of the Merri-mac winding below, while far away to the right the spires of their goal, the university town, beckoned to her. She gazed so long that Nora, standing below, grew impatient and called to her to hasten.

"I see where you're looking!" she cried; "but you can't ride away to it on your wishes. You'll have to roll there on these precious apples, and if you are going to do that you'll have to pick them first."

All morning they took turns—"qualifying for the basket-ball team," Nora called it. One would pick the outer branches, lying along a limb full length, while the other caught the heavy fruit dropping down. One, two, three, four could be tucked into the crook of one arm and two more in the hands, and then there would come a pause while the catcher rolled them into the basket, keeping an eye out for any apple which, dropped a second too late, might hit her on the head. The weather was clear and cold, and the big fruit stung the hands as it fell, but the girls stuck to it and by lunch-time two of the trees were clear.

"Just think!" Nora exclaimed as they took their seats at the table. "Only about ten or twelve more barrels to pick and we're through! Does n't it seem wonderful!"

Their father, however, looked grave.

"You would n't like to invest a few dollars in hiring a couple of men to help you, and so finish up to-day?" he asked.

"Why, Father!" Ruth said reproachfully; "what a thing to suggest when we've done it practically all by ourselves! And this afternoon, you know, we're going to knock off and celebrate the approaching end by going on a hay-ride to Tanner's Pond with Mrs. Dunham and the Ellis girls and Joe Richardson and the three boys who are staying with him. We have n't stirred out of the orchard for a month, and we promised to go to-night. We start at five, have a moonlight supper, and—don't expect us back till you see us!"

Mr. Halsey looked troubled, but he said no more till five o'clock, when he met the girls at the gate just as they were starting.

"Look here, chickens," he said; "I feel badly about spoiling your fun, but I've been down the street and find that all the pickers in town have been hired by the farmers who mean to get in their apples before the frost comes. The ther-

mometer is dropping fast, and I'm afraid you'll lose every last barrel to-night."

"But if the pickers are all engaged," Ruth began.

"Yes, it's too bad," her father said. "I ought to have insisted before, but you've worked so hard I had n't the heart to stop your picnic if it was n't absolutely necessary. Now I'm afraid it's too late. However, I'll find your brother and we'll come along and help you. We'll bring some lanterns and do what we can; we ought to be able to get in the best ones anyway."

The girls smiled bravely in spite of their disappointment.

"We'll just run down and tell the others," Nora said. "And then we'll meet you in the orchard. It's good of you to help us, Dad."

They hurried to the meeting-place and told their doleful tale.

"So you'll just have to go without us," Nora finished. "Please don't have too good a time: we're so disappointed!"

"All right," Joe called after them; "good luck to you and the crop!"

"They might have been a little sorrier," Nora complained as they hurried up the hill, but Ruth shrugged her shoulders philosophically.

"Oh, well, they probably don't realize how tired we are of this work and what a loss it will be if we don't get in these barrels. Come along!"

They found their father and the Pickle hard at work. Before they themselves had well started a hay-cart rumbled up the hill and out jumped the picnic party.

"We're going to have our picnic right here," Joe explained as they streamed into the orchard. "We've brought the food and the wood for the fires, and we're going to pick with you and then have supper."

Never had the old hill seen such a frolic! They built several bonfires, and picked by the ruddy glare. The men in the trees and the girls on the ground made short work of filling the barrels. They assigned a pair to each tree and worked in rivalry, stopping only to munch an apple or call to each other across the empty spaces of the night.

For hour after hour they worked like bees, the twins joyfully superintending the crowd as they realized that the unexpected aid meant success to their plans. One after another the finished barrels were hoisted into the cart and trundled down to the barn, where the boys headed them up like professionals. At eleven o'clock the last one was safely housed, the last windfall stowed into a bag, and a gleeful, disheveled party sat down around the biggest fire to eat a belated

supper and drink the hot coffee which Mrs. Halsey had made and sent up to them. The firelight threw its flickering shadows on their faces and made the twins' eyes shine brighter than ever as the others toasted their enterprise and determination.

At last the glowing embers died down, the last song was sung, the last grateful words spoken, and slowly they went down the hill to a well-earned rest.

The following morning, before the twins were up, their mother came to their room smiling and holding out a telegram, which they knew could be from none other than the redoubtable Uncle William.

It read as follows:

Have had no notice of broken bones. Am sending fifty dollars reward.

A rapturous hug from both girls rewarded Mrs. Halsey for the joyful news. "Uncle William certainly is a duck!" sighed Nora, blissfully.

"It will help wonderfully with our clothes," Ruth interposed. "Oh, Nora, I could almost dance if I were n't so stiff!"

The next time the twins did their accounts by the big lamp they ran as follows:

From early apples—12 barrels at 4.10.....	\$49.20
From 10 boxes blue pearmain at 3.00.....	30.00
From 85 barrels Baldwins at 3.75.....	318.75
From 40 bags of windfalls at .19.....	7.60

Total from apples.....\$405.55

From Uncle William for birthday presents....	\$200.00
From Uncle William for not breaking bones....	50.00

Total\$655.55

For apples	\$25.00
For barrels and boxes.....	14.18

Total expenditures.....\$39.18

Net profits.....\$616.37

"Well, thanks to Mr. Goodwin and Mr. Cobb and Father and Mother and Uncle William and the Pickle and the crowd that last night, we 'll have four hundred and sixteen dollars to divide—over two hundred apiece instead of the hundred and seventy-five we hoped for. Oh, Nora, we 're capitalists! Let 's go and tell the family!"

OCTOBER DAYS

BY GRACE MAY NORTH

OCTOBER days! October days!
A haze is on the hill;
The birds are to the Southland flown;
The woods are hushed and still,

Save for the rustling of the leaves
As squirrels dart about,
Until nut-hunting children come
With joyous song and shout.

The squirrels then hide in their holes,
While children fill each bag.
They find as many hickory-nuts
As they can pull or drag.

But when with shouting they are gone,
Again the woods are still,
And soon the early twilight falls
Across the field and hill.



THE GAME I LOVE

BY FRANCIS OUIMET

Former National Golf Champion of America



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FRANCIS OUIMET FINISHING A DRIVE.

THE man who is fortunate enough to gain more than local fame, if such it may be called, in this wonderful game of golf is the object of many queries about this, that, or the other thing in connection with his play and his experiences on the links. He is certain to be asked what club he likes most among those which he generally carries; what kind of shot he likes most to play; what club he considers most valuable; and what shot gives him the greatest inward

sensation of pleasure when successfully accomplished. Some golfers may find such questions easy to answer, but I must confess to a measure of perplexity, at times, in diagnosing my own impressions, particularly with reference to what shot gives the greatest reward in thrills. There unquestionably is a great delight in getting away a long, straight drive, where the ball travels far through the air, and perhaps bounds merrily along for many additional yards after striking the ground; there is the pleasure, inspired by a feeling of mastery, in compelling the ball to turn either to right or left to avoid some hazard, simply by a knowledge of how to hit it for what is termed a slice or pull; there is joy in laying a mashie-shot dead, when you know that you have hit it firmly and have gained only what the shot actually deserved; there is a sort of exultation in hitting a long putt boldly and seeing the ball drop into the cup, an exultation intensified if you happen to have that putt for a half or the hole. Yet more than any of these, as I think over the gamut of shots in golf, it strikes me that the greatest delight of all is to find the ball sitting nicely up on the turf in the fairway with enough distance ahead to call for a full shot with the

brassie, and then get away cleanly, with all the force at command, a shot with that club which, except for the number who use it for driving, has gone much out of fashion in these days of the lively ball.

My observation would lead me to believe that the average golfer has his greatest pleasure when he makes what, for him, is an unusually good drive. This does not necessarily apply to the long hitter. There must be just as much satisfaction in a drive of 175 yards for the man who normally gets only 150, as in a drive of 300 yards for him who frequently gets 250. In either case, there is the inward feeling of having accomplished something out of the ordinary, something which proves that there are latent powers in the man to be developed, so that, in time, his long drive of to-day will be his normal drive of to-morrow.

This matter of driving is one point that I would like to dwell upon, for it is a department of the game in which the young golfer, or the beginner, is apt to start out with misguided ideas. In previous articles for *ST. NICHOLAS* it has been pointed out that the long driver is not necessarily the winner. Moderate distance, combined with accuracy, will win far more matches, or produce far better scores, than extraordinary distances but bad direction. If a golfer goes on the tee and with a prodigious effort sends the ball 300 yards, but out of bounds, what has he gained? Only the right to play another ball from the tee, with the chance of equally disastrous results from the very fact that he already has wasted a stroke. One of the commonest mottoes is that "the longest way round is the shortest way home"; but in golf that is seldom the case; its only application, perhaps, is on a hole of the dog-leg variety, where one golfer takes a chance of getting into trouble by cutting a corner, while the other elects to play strictly along the line of the fairway.

It is an excellent thing for the golfer to get into the habit, if he can, of mentally comparing his drive with what he remembers having done before at the same hole, rather than to disparage it by noticing how many yards he may be in back of his friend or rival. If he can bring himself into this enviable frame of mind, he has done much toward a greater enjoyment of golf, as well as toward greater efficiency in competition. This lesson came home to me during the Greater Bos-

ton Interscholastic Championship of 1910, at the Woodland Golf Club. One of the side events of that championship was a driving-competition, which took place at the eighth hole. When it came my turn to drive, I got away three drives that I inwardly thought were "beauties." They were hit clean and hard, and the distances gained were highly satisfactory to me as I stood on the tee. When it came to measurements, however, my three efforts were far short, in total distance, of the three which won the prize. The fact that

to think and worry less over whether he is going to hit the ball squarely from tee or fair-green. When that part of the game becomes a little more second nature, then there is fairly certain to be a few yards additional length with the wooden shots and long irons, because the swing is apt to become freer.

Sometimes it makes quite a difference what style of club the golfer is using. When I was a youngster and new to the game, I labored under the false impression that in order to get equal distance with other boys larger than myself it would be necessary for me to use a long and comparatively heavy driver, the length to provide added leverage, and the weight to give just so much more initial impetus to the ball in its flight. It is with a smile that I now recall how at one time, when considerably younger and smaller than now, I struggled along with a driver forty-six inches long and fifteen ounces in weight, longer and heavier than the clubs which I use to-day. Of course it did not bring about the desired results, because the driver was too long and too heavy for me to swing quickly. It is quite likely that there are many playing the game to-day and getting poor results in their driving who would find quite an improvement if they used a brassie, instead of a driver, for the tee-shots. The brassie face is laid back more than that of the driver, and even though many brassies are made with only a little more loft than the driver, at the same time this little helps to get the ball into the air. It also has the brass on the bottom of the club, which gives a little more "bite" as the club-head sweeps the ground and comes in contact with the ball. Many golfers may prefer the driver because, with its straighter face, the trajectory of the ball is kept lower and gives more run to the ball; while it also works to advantage in playing against a wind. At the same time, one has, perhaps, more confidence in using a brassie with the feeling that it is just so much easier to get the ball away from the ground. It is entirely a matter for the individual, however. The only point that I would like to emphasize doubly is that it pays to learn to play the wooden clubs; for while the iron may produce excellent distance, there are times when a full brassie-shot or a full drive will save a stroke that never could be done with anything else. Moreover, the pleasure of getting away a full wooden shot, as I said before, is great.

For downright usefulness, as well as pleasure, there is hardly any other shot in golf quite the equal of the well-played mashie. There are long drivers in abundance, but it would not be stretching the point to say that for every twenty long



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FRANCIS OUIMET, AT THE TIME OF HIS FAMOUS MATCH WITH VARDON AND RAY.

I had hit three balls cleanly and with all the power that I could muster brought the realization that I simply was not physically constituted to compete successfully in a driving-competition with older and stronger boys, and I perforce had to derive what satisfaction I could out of the fact that I had done as well as I did.

Long driving is not an over-night acquirement. The boy or girl who takes up golf and expects to acquire distance and accuracy in short order is pretty apt to be disappointed. Getting greater distance is a slow, steady, and almost imperceptible process, which comes about as the golfer's muscles are strengthened by the process of swinging the clubs, as mind and muscles get to working in better unison, and as practice allows the player

drivers there is only one golfer who is equally effective with his mashie. This also refers to another club for the short approach, that is, the mashie-niblick, and perhaps, to a lesser extent, the niblick. The good drive unquestionably is a great asset in competitive golf, but as a rule it is the skill with the mashie that ordinarily stamps one golfer as superior to another. Here is the club which comes into play when the ball is comfortably near the hole, and fortunate is the man who can consistently get his ball nearer the hole than his opponent. Not only is he surer of getting down in two putts, but he has so much greater percentage of opportunities for getting down in one.

It is surprising how different is the

HOW OUIMET
HOLDS A
CLUB.



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attitude with which many a golfer faces the drive and that with which he goes at his mashie-play. On the tee his method is bold. He takes his stance, takes back his club, and hits at the ball in a manner which leaves no impression of uncertainty as to his intentions. Plainly, it is his intention that the ball is to go as far from the tee as it is within his power to make it. But put that man within seventy-five or a hundred yards of a green, with a mashie in his hands and the ball in a good lie, and what happens? The distance is too short, we'll say, for a full mashie, and he hits the ball as if afraid that it might be an egg and that his club would break the shell. There is a lack of firmness about the shot which is fatal to success. It may not be so pronounced with a full mashie, but how often we see a seventy-five-yard approach only half hit, and the ball either stop well short of the green or barely get to the edge of it and still a considerable distance from the hole.

My own motto is that every shot should be hit firmly, the mashie as well as the long iron or the still longer drive. Therefore, as the mashie is the club of which so many golfers seem to feel "afraid" when facing a certain kind of shots, my

own belief is that one of the best means of improving one's game is to put in a tremendous amount of practice with the mashie. Mr. Walter J. Travis was never what might be called a long driver, but he won tournament after tournament and a number of championships because of his extraordinary skill with the mashie, supplemented by his remarkable putting. And even his putting had some of its success, no doubt, because of his mashie-play. A man who could so uniformly lay his ball well up to the hole was fairly certain of going down with more than average frequency in one putt, and thereby came some of that reputation as a putter which fell to Mr. Travis's lot. That is my own explanation, at any rate; which is not saying, by any means, that Mr. Travis has not been a great putter even when his ball has been far from the hole.

The trouble that hosts of golfers experience in their mashie-play arises, according to my observation, from timidity—a tendency to let up in the stroke for fear of hitting too hard. Now with the mashie, or any other club, there is nothing more essential to success in golf than hitting the ball firmly. If the shot calls for a mashie, and yet the distance is too short for a full mashie, then, to my mind, the proper way to play it is to cut down the length of the swing and apply full power to the stroke, letting the shortening of the swing take care of the distance. The moment the effort is made to take the full mashie-swing, and then cut down the distance by letting down in force at the finish, the usual result is that the ball is not well hit, or it is not hit half hard enough. On the other hand, with the abbreviated swing, the ball is hit, relatively, just as hard as with the full swing; hence it is much more apt to go straight, and is far better controlled. As to how far back to take the club for the distance to be gained, that is something on which, with practice and experience, the eye and muscles coördinate and telegraph to the brain instinctively. There are, of course, different kinds of mashie-shots to be learned, according to conditions of turf and other factors which enter into the game. If there is an approach which calls for a carry over a bunker fairly close to the green, the ball has to go into the air, and the golfer will learn that the best way of getting this result is by gripping his club loosely well up on the handle, letting the club-head brush the ground as it approaches it, and the natural loft of the club's face send the ball into the air. Then there is the approach where it is better to keep the ball low, where the grip is firmer and the ball somewhat "smothered" as the face of the club hits it and passes into the turf.

The firm stroke applies not only to the mashie, but to all the clubs used. Another point I should like to mention is that, in my opinion, it is unwise to "under-club" a shot, that is to say, not to press with a mashie to cover the distance which could be gained more easily with, say, a three-quarters shot with a mid-iron. The moment the player overexerts himself trying to get more than the normal distance with a club, he does so at the expense of accuracy. The thought of that extra distance to be covered predominates over everything else.

Along this same line, too, is another error to which many a golfer is prone, which is in think-

ing that, because his opponent has used a certain club for a certain shot, he must do likewise. Time and time again it has happened that one player in a match has taken, we'll say, a mid-iron to reach a green, and his opponent, seeing the success of the shot, takes the same club against his own inward conviction that he ought to employ a cleek. Each golfer should be his own best judge of what club to use for a shot, and not be governed by what anybody else does. The other player's mid-iron may be of a type for getting greater distance than yours, for one thing; and for another, it is always wisest to realize your own limitations and govern yourself accordingly.

FRIENDS

BY MINNIE L. UPTON



'T WAS a merry little Kettle,
And it sang a merry song;
You could stop it for a minute,
If you put cold water in it,
But that song—it would begin it
In a minute, brisk and strong.

"Little Kettle, little Kettle,
With your happy little voice,
Cheery as the Christmas holly,
Tell me how you keep so jolly,
Never sad nor melancholy,
Always ready to rejoice!"

"I will settle," quoth the Kettle,
"All this puzzlement for you:
I've a Friend! And that 's the reason
I am gay at every season;
To deny it would be treason—
'T is the Fire, warm and true!"

"Ah, my loyal little Kettle!"
Flashed the Fire, all aglow,
"What you say is true—but *see* here:
Though you always do find *me* here,
But for Friend Match I 'd not *be* here,
For he kindles me, you know!"

"But, like you, good Fire and Kettle,"
Called the Matches, with all speed,
"We 've a Friend. She sets us working,
Knowing there 's no joy in shirking,
In a lazy corner lurking—
Polly knows just what we need!"

And as Polly put the Kettle
On the hob, she piped, "'T is plain—
Just exactly as my mother
Has explained to me and Brother—
Friends were made to help each other
Do their best with might and main."

IN THE CITIES OF SALT

BY W. G. FITZ-GERALD AND HAROLD J. SHEPSTONE



THE VESTIBULE OF THE GREAT BALL-ROOM.

EVERY world-traveler knows that some of the greatest wonders of art and nature lie altogether out of the beaten track of sight-seers. And no stranger example could be found than the marvelous rock-salt mines of Wieliczka and Bochnia, in the valley of the Vistula, on the north slope of the Carpathians, a few miles off the Cracow-Lemberg Railroad.

The announcement was made over a year ago that the Russians, in their advance upon Cracow, had captured Wieliczka; but if this was true, they were driven back from it not long after, and thus lost possession of a valuable prize of war, for Wieliczka's salt mines are really one of the wonders of the world. Indeed Cracow's great interest to the tourist and visitor has long been in these mines, which are situated some eight miles from the city, and easily reached by train or carriage.

Here, over a thousand feet down in the bowels of the earth, Polish miners, blasting and working rock-salt for over ten centuries, have gradually left behind them a sparkling fairy city of palaces

and shrines, unmatched for beauty and strangeness on this earth. The formation of these mines goes back into the mists of antiquity.

An ancient legend has it that St. Klinga, wife of Boleslaw the Modest, when on a visit to her father, Béla IV of Hungary, in 1252, dropped her wedding-ring into a salt spring, and that it was returned to her many months later, imprisoned in a lump of salt from Wieliczka.

The town has, perhaps, some 7500 inhabitants, and viewed from the surface the mine looks unimpressive enough. To visit it, a permit is required from the Austro-Hungarian Minister of Finance in Vienna, for the mines are state property. A crazy cage goes down to the various levels, and by it the various shifts of miners descend.

There are about 1200 men at work day and night in the mines, and all they receive is a bare twenty-five cents a day, despite the fact that the action of salt has a most disastrous effect upon their health.

Often enough there is a rush of water into a

new gallery, or some of the salt columns, left to prop the workings, will collapse, and hundreds of men may be cut off from rescue for many days. Then there are dangers from gas and fire. In 1644 a terrible conflagration broke out while fodder for the mine horses was being lowered. It raged for seven months, consuming even the boats upon the subterranean lakes, and the little railroad stations, cafés and restaurants, and other buildings in this strangest of cities.

Talking of the horses reminds one there are hundreds of them employed in the underground city, hauling little steel wagons full of rock-salt; and many of these animals are entirely blind, having been born in the mines and having lived for years without seeing the light of day.

Visitors desiring to see the wonders of this city of salt are fitted out with miners' shirts and hoods, and are conducted by guides, one to each three persons. The descent may be made in the miners' cage, but it is much more interesting to go down by one or other of the great zigzag staircases hewn in the salt. Almost blinded by the darkness, and frightened by the eerie echo of his own footsteps the visitor first enters some colossal chambers hollowed out by the laborer in the ordinary course of mining after a plan laid down by some master mind. Then comes a walk through shining streets, and soon one emerges into the enormous chamber known as the Letow



ONE OF THE STAIRCASES, HEWN IN THE SOLID ROCK-SALT, WHICH GOES DOWN A THOUSAND FEET TO THE SUBTERRANEAN CITIES.



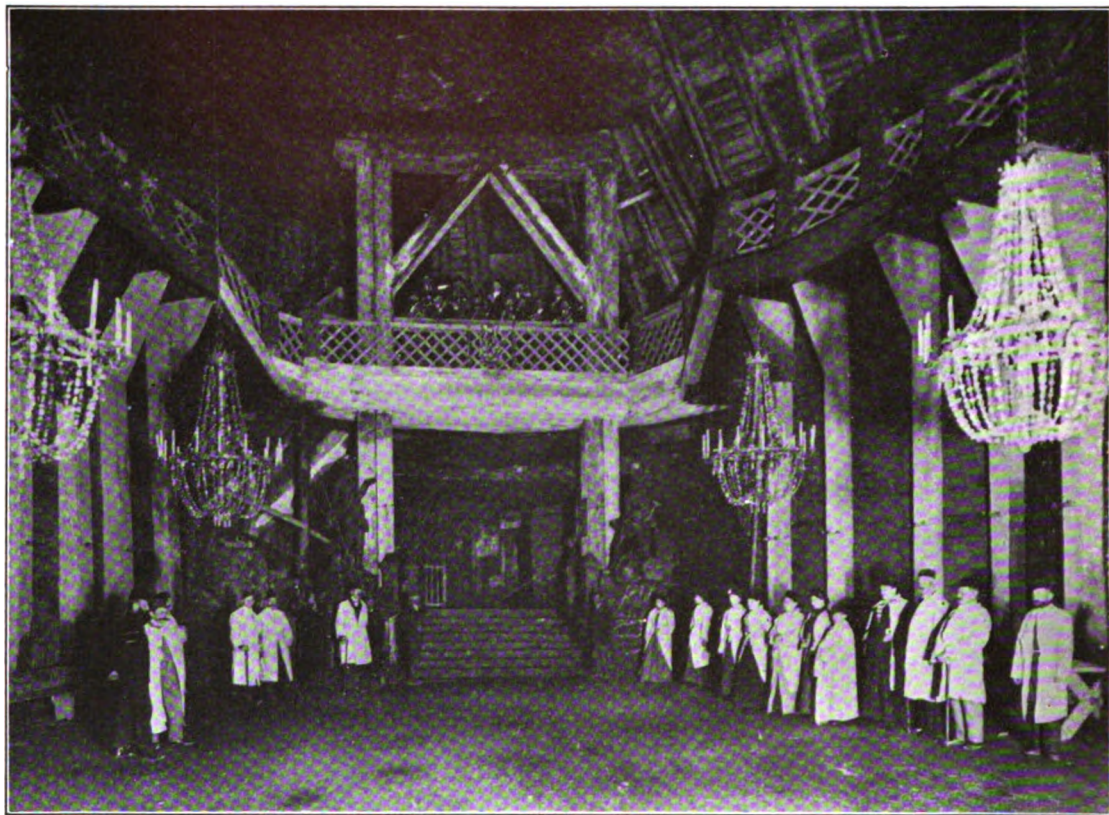
"THE VISITOR FIRST ENTERS SOME COLOSSAL CHAMBERS."

Ball-room, illuminated with electric light, and fairly dazzling in effect; for it looks as though hewn out of masses of precious stones that glitter and coruscate like diamonds and rubies, sapphires and amethysts.

It must have taken centuries of human toil to hew this enormous rock-cut chamber; and one can well believe that altogether the "City of Salt" now contains over two and a quarter million

ever, are known as the "Kaiser Franz" and the "Erzherzog Albrecht." That containing the ball-room lies 230 feet from the surface, and is, so to speak, on the topmost tier of this underground world of salt.

This immense chamber was turned into a ball-room for the first time by Napoleon's adversary, General Prince Suvaroff, during the Russian occupation in 1809. Suvaroff was so delighted with



"THE ENORMOUS CHAMBER KNOWN AS THE LETOW BALL-ROOM."

cubic yards of clear space, which is constantly being added to as fresh workings are being opened up. There is surely no more remarkable hall in the world than this ball-room over two hundred feet below the surface of the earth and cut in rock-salt, with its ancient twisted pillars, elaborate galleries, and gigantic chandeliers, all carved with patient art out of the glittering crystals.

One notices at one end a crudely cut, yet massive throne of a greenish salt, which in some lights gives out ruby-red flashes. This is kept for the aged Emperor Franz Josef, whenever he comes on a visit.

There are altogether seven cities below ground, all at different levels. The two chief ones, how-

this novel ball-room that he caused a wooden floor to be put down. The immense lustres of salt crystals were added in honor of the Czar Alexander I, who, in company with the Archduke Joseph, Palatine of Hungary, visited the mine shortly afterward.

At one end are high reliefs hewn in the salt walls symbolizing "Knowledge" and "Labor." There are weird-looking statues, too, of Vulcan and Neptune also cut in salt; and a triumphal archway surmounted by the figure of a miner saluting. A Polish inscription is carved beneath. These Galician miners maintain an excellent orchestra among themselves, and on festival days the salt-cut ball-room is a strange and merry

scene with wild Slav music and dancing couples all in native costume.

On the second level of the mine is another magnificent apartment known as the Michalowice Chamber. This is nearly 100 feet long, 60 feet wide, and no less than 121 feet high. It supplied salt for forty-four years; and in parts the sides and roof are made secure by means of lofty tree-stems placed one above the other and strutted together. Depending from the center is a huge luster of salt crystals, which is eight feet in diameter and twenty feet high. This unique chandelier takes 200 candles, which, when fully lit, make the great chamber a spectacle of weird grandeur.

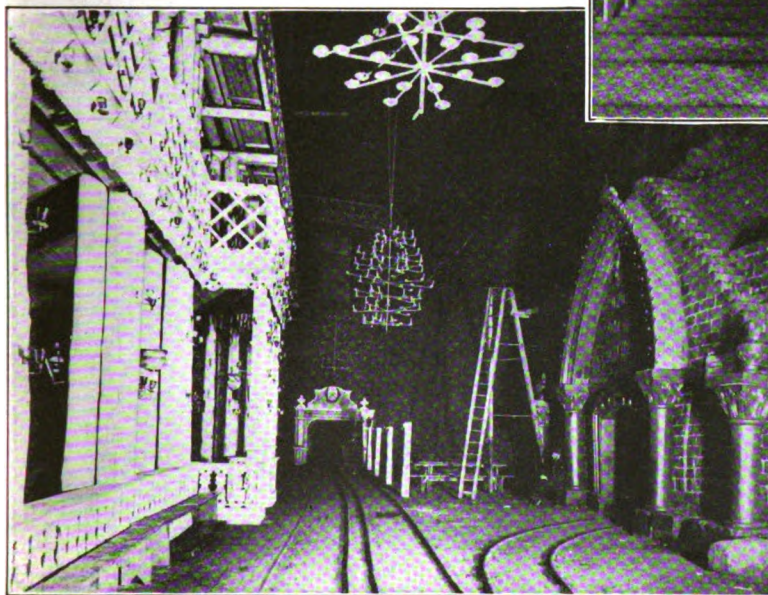
The illumination of the mine is carried out by the authorities according to a regular tariff, the basis of which is the number of persons who may on certain days wish to make the visit. A "first-class" illumination, which comprehends the lighting up of the thousand and one candles and electric lamps scattered in all parts of the mines, costs twenty-two dollars for any number of persons up to twenty. For this sum the place becomes one blaze of light and seems an enchanted fairyland.

The Kaiser Francis Chamber, which is nearly 200 feet long and 104 feet high, contains memorials of a visit from an early emperor and empress, as is recorded on two rock-salt pyramids.

walks down the spacious floor by the light of red Bengal flares and hears in the distance the wild



A SALT CHANDELIER IN ONE OF THE CHAPELS.



A RAILROAD STATION AND RESTAURANT IN THE UNDERGROUND CITY.

strain of the miners' band below.

Some 250 yards away and about 500 feet below the surface of the earth, one reaches the Count Goluchowski station, excavated three centuries ago, and in 1854 turned into the main railroad station of the underground city, since it is the point of convergence for so many of the galleries, with their little trolley-lines and horse-cars.

On great holidays friends of the miners and visitors generally assemble on the station platform, where is a café seating 400 persons. And in a gallery above—of course cut in the salt—an orchestra of miners plays selections

The Archduke Frederick Chamber slopes down between the second and third levels; and a strange effect is produced on the visitor as he

tion platform, where is a café seating 400 persons. And in a gallery above—of course cut in the salt—an orchestra of miners plays selections

to the passengers who are about to make a trip altogether unique. Just westward of the station are two beautiful grottoes, respectively the Rudolph and Stephanie, connected by a tunnel filled with salt water sixteen feet deep.

Farther along, this broadens out into a lake, and rising out of the water is a colossal statue of St. John, with lovely shining salt stalactites all round him. Immediately beyond, one enters the marvelous cathedral of St. Anthony, with altars, statues, columns, and so on, all hewn from the sixteenth century onward out of ruby-red rock-salt.

You can imagine no experience more impressive than to enter this crystal-hewn church behind a party of men provided with flaming pine torches and bunches of magnesium ribbon. Its reputation for sanctity is so great that the church is resorted to by thousands of pilgrims annually. The miners have their own chaplain, with special prayers adapted to their perilous calling, and

and on the 3d of July a bishop descends in gorgeous vestments of cloth of gold, attended by pilgrims from all parts of Austrian Poland. One may well imagine how impressive this service must be, with the swelling chant of the choir echoing through the fretted roof of shining crystals, the solemn echoes of the organ, and the musical voices of the miners singing a Mass by Mozart.

Equally impressive is the service held on August 18, the birthday of the Emperor-King. And there is a second place of worship known as the Queen's Chapel, with a magnificently carved salt altar and chandeliers.

Of the many marvels to be seen in the mine, the most wonderful perhaps is a second large subterranean lake, lying 700 feet below the surface of the earth. The waters are dark, thick, and heavy, and, as the boat in which visitors are carried glides over its surface, the spreading

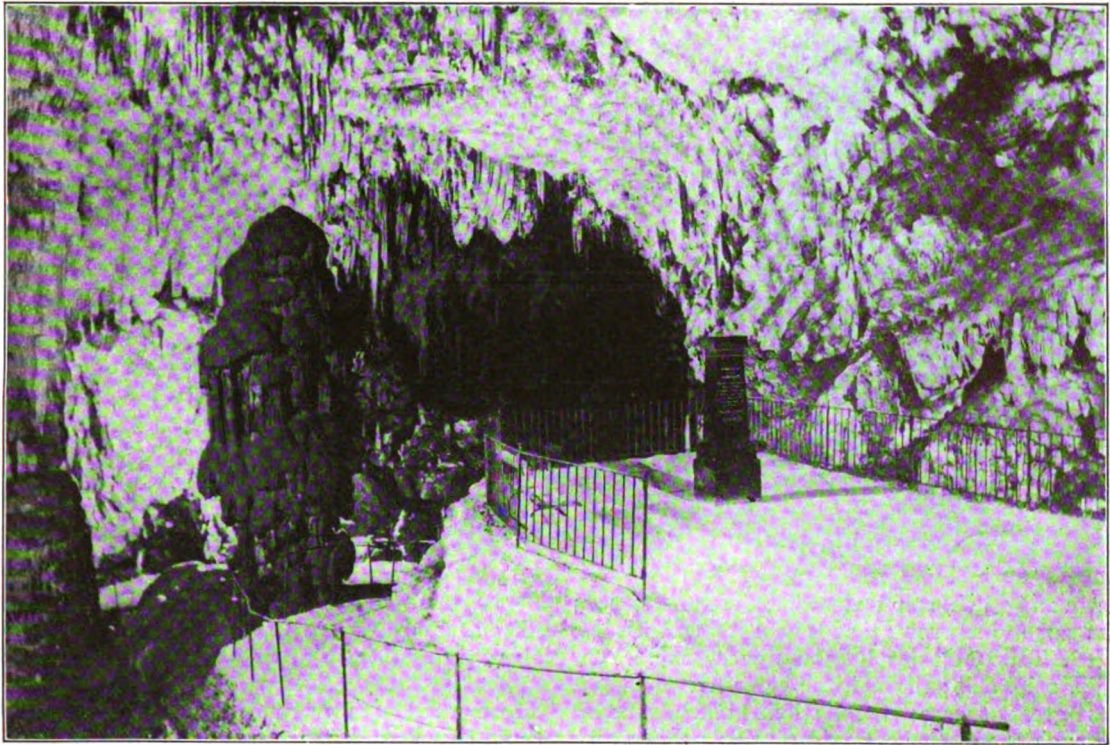


NAVIGATION ON ONE OF THE SALT RIVERS IN THE MINE.

never a shift is changed but prayer is offered in the subterranean cathedral which grew so slowly under the ax and chisel of these devout Galicians.

At regular intervals priests descend from Wieleczka to celebrate elaborate masses in the church;

ripples roll up against the sides of the grotto with a ghost-like swish. The little waves splash against the greenish and ruby sides of the grottoes, making weird echoes and giving the visitor an overwhelming sense of remoteness from the



ONE OF THE MONUMENTS IN THE UNDERGROUND CITIES OF SALT MADE TO COMMEMORATE AN IMPERIAL VISIT.

world. The boat is substantial, and accommodates many people. It is guided through the grottoes in a curious fashion, by ropes running on pulleys along the sides of the boat. The trip across and back takes fifteen or twenty minutes, as the boat moves slowly through the sluggish brine. A gun fired in the middle of the lake makes a long and lingering echo, and the voice of the boatman, as he calls out that all is ready, seems like the voice of a giant from the depth of chaos. There are

sixteen of these lakes in the mine, but visitors are allowed only upon two of them.

All the laborers work about eight hours a day and produce 65,000 tons of salt per annum. As might be supposed, their implements are of the most primitive kind, but still these simple men continue patiently cutting their way through the solid crystals, leaving behind them strange pillared streets with statues, sign-posts, obelisks, queer animals, and a hundred other fantasies.

THE ELEPHANT

BY GEORGE C. CASSARD

An elephant baby I know
 Was so
 Unhandy and clumsy and slow
 To go
 When he had to do tricks
 With a bundle of sticks
 That they pulled him right out of the show,
 Although
 It took twenty men in a row.

But he got an engagement one day
 In May
 To walk on his hind legs and play
 Away
 On a small hurdy-gurdy,—
 This elephant sturdy,—
 And now he is happy and gay,
 They say,
 And, besides, he earns much better pay!



Snip & Stitch

Being the Ninth of the
**Wonder-Box
Stories**
by
Will Bradley

SNIP and stitch, snip and stitch; the same to-day, the same to-morrow; that is how it was with the Little Tailor, all day long and every day. Yes, snip, snip, snip; through the cloth he would ply his great shears; then stitch, stitch, stitch; through the cloth he would ply his needle; and always his eyes twinkled and he hummed a lively tune, for he was young and jolly and thought this world a fine place in which to live, especially as he heard the goodwife stepping about in the kitchen, and could smell the cabbage broth a-boiling on the fire for his dinner.

Well, when the Little Tailor and his wife had been married about a year, there was born to them a fine son; and when they had been married about two years, there was born to them another fine son; and because they had found no name for the first son, now they found it no easier to name the second.

"See, Wife," said the Little Tailor, "our two lads we will call Snip and Stitch, for better names than those we cannot find in all the length and breadth of the land."

So Snip and Stitch the two lads were named; and Snip was the elder and Stitch the younger.

Then the days slipped merrily by, and after the days, the months, and after the months, the years, and when a score had run their course, the Little Tailor said:

"Wife, now has come the time when we may buy a cow and a pig and a few chickens and settle down on a bit of farm-land, for we have worked long and faithfully to that end, and there are enough gold dollars on the shelf to pay the score."

Yes, the goodwife would do that, for no one likes to abide forever in one spot; but see, how about the two lads Snip and Stitch?

Oh, the Little Tailor had thought of all that. There were one or two round gold dollars that could be spared for the lads; then, too, there was the shop where they could continue the tailoring and earn a fair living.

Well, when the hand-shaking was over, and the good-bys said, and the two lads were at last alone in the shop, said Snip the elder to Stitch the younger:

"Brother, we now have the shop and three gold dollars; but as for me, I would not forever sit cross-legged upon a table and stitch seams, as did our father, neither would I ply the shears all day long, snip, snip, snip the cloth for other folk's raiment. No; there is better than that to be had out in the big world if one but has the wits to find it."

Stitch thought that might be so. "But," said he, "though much may be gained, so, also, much might be lost; and what is good for father is good for son; so I for one will just remain at home and do the tailoring."

In that nick of time who should come riding up to the shop but a messenger from the palace. The King had stepped on the hem of his best purple robe and had torn it badly. That was what the messenger said; also he told how the royal tailor could never mend the tear to the King's satisfaction. And now would Snip or Stitch come and try his hand at the job, for the King expected company that evening, and nothing would do but he must wear the robe?

Snip looked at Stitch, and Stitch looked at Snip. At last Snip said:

"Brother, all that is now wanted is merely mending. Go you to the palace and ply such a nimble needle that mayhap the King will order a *new* robe. Then it is I who will serve him, and in such a fine manner as to make our fortune, for at cutting and shaping of robes in the latest fashion there is not my equal in all the realm."

Stitch thought there were others who might have something to say on that matter; but he took the suggestion kindly, and said nothing more than bid the messenger lead the way.

When Stitch reached the palace, he was not long in mending the robe; and when he had finished, so well had he done the work that if any one was ever pleased, surely that person was the King. Nothing now was too good for a reward, and in the end the King took Stitch into a fine room where on a carved oaken table stood two square caskets, one of which was all of gold, beautifully carved, and the other was of pewter, quaintly hammered.

"Choose," said the King, pointing to the caskets. "Choose one of these as your reward for mending my robe; and whether it be the gold one or the pewter, you are full welcome; and with the casket go my thanks."

"*Oui!*" thought Stitch; "if I choose the gold casket, it may be full of jewels, enough to make me rich all the days of my life; and certainly that would be well worth the choosing. On the other hand, if I choose the pewter casket, it may be empty; but even thus, it will be all the mending was worth and more too. Also, it will be such as a tailor may keep in his shop with no fear of robbers." Then to the King he said: "I will choose the pewter casket, Your Majesty, and thank you for your generosity, for of much more worth it is than my little mending."

When Stitch reached home, no sooner had he placed the pewter casket upon the floor than a shadow crossed the threshold, and there in the doorway stood Snip.

"And what is this you have here, Brother?" said Snip.

Oh, so and so, and so and so; just a pewter casket the King had given him. That was what Stitch answered Snip, and in the end he told the whole story.

How Snip did fuss and fume!

Was Stitch such a numskull as to choose a pewter casket when he might have had a gold one? Did any one ever have such a stupid

brother! Well, as for him, never would he remain and work in the shop with such a noodle! No, he would just take as his share of the business the three gold dollars, and go out into the world to seek his fortune.

"And may good luck be your way-fellow," said Stitch.

"And may much profit come of your pewter casket," said Snip. For now that he had the three gold dollars jingling in his pocket he was not in such a huff. But his words came from his



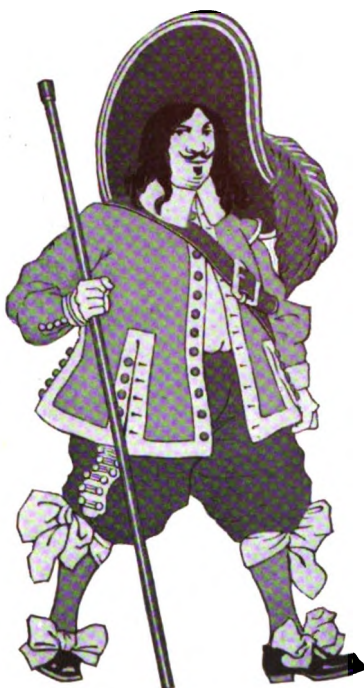
"WHO SHOULD COME RIDING UP TO THE SHOP BUT A MESSENGER FROM THE PALACE."

teeth only, and no good-will was there back of them.

Thus they parted, and in a while Snip was but a speck on the brow of the hill where the high-road dipped into the next town. Then Stitch put the pewter casket on the shelf and climbed upon his bench, where he sat cross-legged and let his needle run merrily in and out of the cloth and along the seams that went to the making of a fine garment.

"What was in the pewter casket?" you ask. Well, that I don't know, for neither Snip nor Stitch had thought to lift the lid and look. But there the casket rested on the shelf, making such

a brave showing in the little shop as might be well worth more than one look by any one who chanced to be stepping that way. And on the morrow there was one who did step that way, and this one was no less a person than the Burgomaster.



"THE BURGOMASTER WALKED OUT OF THE SHOP WITH A PROUD STRIDE."

My, how the Burgomaster did stare when he saw the pewter casket! You see, once he had been invited to the palace, and had seen the casket beside the gold one on the oak table, and now as plain as two and two make four, the King must have given the casket to Stitch.

And if the King did that, of course the King must be a special friend of the tailor. Yes, all of that was perfectly plain; and as the Burgomaster needed some new clothes, why, he would just patronize Stitch. And when he paid for the clothes, he would n't fuss and fume and say the bill was too high, as was his usual custom; no, he would slap Stitch on the back and tell him the fit was fine, and then he would pay a gold dollar more than asked; for it would be well to be liberal and open-handed with one who was certainly a friend of the King.

All of these thoughts passed through the Burgomaster's mind in that short space of time while he was looking at the pewter casket; and no longer time did it take him to order a new suit, which in the end he paid for just as he had planned. Nor did he even wait for the tailor to send a bill, but threw the gold dollars down upon the table with the merriest kind of a jingle, and, staff in hand, walked out of the shop with such a proud stride that he who looked once must needs have looked again, for the new suit was of velvet and silk and as fine a sight as might be.

One there was, too, who *did* look; he was a swordsman in the King's Guard, and as dandy and dashing a fellow as had ever found favor among the fine ladies of Noodleburg. He was in love with Kassy, the Burgomaster's daughter, and when he saw the Burgomaster walking so proudly out of the little tailor-shop, he twisted his mustachios to the sharpest points and thought: "What is good for a father-in-law is good for a son-in-law. I will patronize the same tailor." Of course, he only thought this, and did n't say it out loud; for he was not yet the Burgomaster's son-in-law, but only hoped to be.

Well, as it went with the Burgomaster, so it went now with the swordsman of the King's Guard; and just as he stepped across the threshold into the little shop Stitch had lifted the lid and was dropping the Burgomaster's golden dollars into the pewter casket.

When the swordsman's suit was finished, he too paid liberally, for it was easy to see that Stitch was a friend of the Burgomaster, and as such, there would be no harm in having his good-will.

Such a gallant showing the swordsman made in his new clothes as he came out of the shop and flashed his sword in the sun that no wonder he caught the eye of the King's drummer; and no wonder the King's drummer was lost in admiration of such glorious raiment.

"I need a new uniform, and this is where I



"SUCH A GALLANT SHOWING THE SWORDSMAN MADE IN HIS NEW CLOTHES."

will buy it," said he; and the next minute he was following his big drum through the doorway into the shop.

Yes, the tailor would make a new uniform for the King's drummer; but wait a minute, there was something else to be attended to first. And as he spoke Stitch dropped into the pewter casket

with folk buzzing here and gossiping there, some word of Stitch must needs reach his father and mother on the farm. Then straightway into the town they both came and to the little shop where, when the greetings were over, his father would have Stitch tell him about the visit to the King and the present of the pewter casket.

"And, Stitch, what did the casket contain?" asked his mother.

"I do not know," answered Stitch; "I never looked."

"It is not too late; let us look now," said his father.

So they put the casket upon the floor; and whereas one had placed it on the shelf, now it took two to take it down. Then they lifted the lid, and, wonder to behold, the casket was full of gold and silver coins to the very top!

"That is a fine gift to come from the King, just for mending his torn robe!" said his father.

"Yes, indeed it is!" said Stitch.

But his mother only smiled and said nothing,

the gold dollars that had been paid him by the swordsman of the King's Guard.

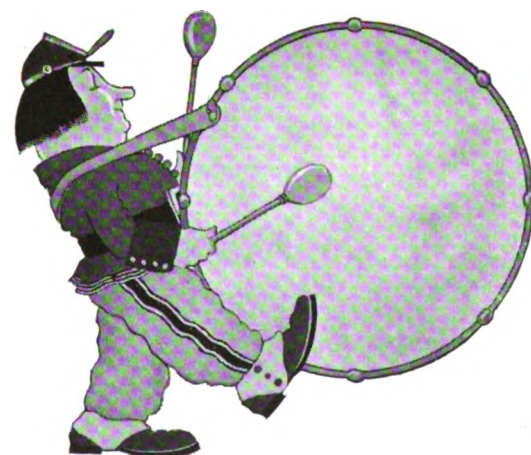
Certainly never before nor since was there heard in Noodleburg such a tune as the drummer beat upon his big drum when he marched out of the shop in his new uniform. And of course, when a drummer is beating a fine tune, especially upon a big drum, every one will be looking in that direction.

Yes; every one looked at the drummer in his new uniform; but the first to look was the grocer.

"My, but Stitch is prosperous!" thought the grocer. "I will just give him extra measure and hold his trade, for where he trades, there others will trade also." And while the grocer was filling his basket the little tailor was adding to the gold dollars in the pewter casket those which had been paid him by the King's drummer.

After this the days jogged along busily and there came not a one in which Stitch did not lift the lid of the pewter casket to drop in a fat round coin or two; and but seldom did he lift the lid to take one out, for not only did his trade thrive, but butcher, baker, farmer, and miller all served him liberally and charged lightly.

Well, as has oft been said, "Where there is fire, one must expect smoke." So in the end, what



"THE DRUMMER BEAT UPON HIS BIG DRUM WHEN HE MARCHED OUT OF THE SHOP."

as often happens with mothers when fathers and sons are uttering words of wisdom.

Of course every one in Noodleburg agreed with Stitch and his father that the pewter casket

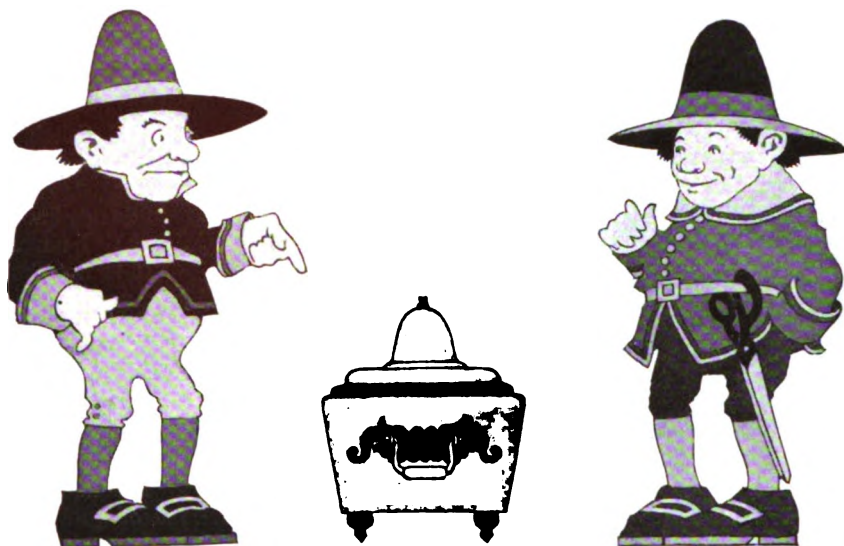


"'I WILL JUST GIVE HIM EXTRA MEASURE AND HOLD HIS TRADE,' SAID THE GROCER."

was a fine gift to have from the King, and I think so too.

As for Snip, his three gold dollars did not take him very far out into the world, and when he heard about the pewter casket being full of gold

and silver coins, he quickly put one foot before the other on the road for home. If Stitch ever took him back into the business and gave him any of the coins, that was his own affair, and is n't told in this story.



OLD SISTER SPIDER

BY ROBERT EMMET WARD

Ol' Sis' Spider, in her little gray gown,
Builds her a house in the sunny open groun';
Ties the grass with guy-ropes, all of silver thread;
Spins a little tunnel for her hiding-place and bed;
Sits there a-waitin' twell her dinner saunters by—
Pounce' across her shining porch with, "Howdy, Mr. Fly!
Just in time for dinner, and I 's glad you drap' aroun'!"
Says ol' Sis' Spider in her little gray gown.

Ol' Sis' Spider, she a-sitting in the door,
Waiting twell her supper step across her gallery floor.
Wops or caterpillar, or a beetle, or a bee,
Ary kind that crawls or flies, she mighty glad to see!
But little Mr. Hoppergrass, what dress' in green so gay,
Kick' out like Unc' Ephum's mule, and cl'ar the web away!
"Never seed such manners, since I 's knee-high to a hen!"
Says ol' Sis' Spider as she starts to build again.

*Early in the morning, when the dew is on the grass,
There she sits a-waiting twell her breakfast happen' pas';
Silver web a-shining, like the fairies spread their rugs—
But Sis' Agalcna Spider ain' so pretty to the bugs!*

ON THE BATTLE-FRONT OF ENGINEERING

BY A. RUSSELL BOND

Managing Editor of "Scientific American," and author of "With Men Who Do Things"

CHAPTER XVII

LAYING A BLANKET ON A RIVER-BED

"Do you know," said Jack, as they left the gas-plant, "night-school begins week after next? Then we 'll be tied to the desk night and day. I think we can do better at school if we have a change of work, don't you?"

"What kind of work?" asked Perry.

"Suppose we try to get something to do on the new subway. If we succeed, we 'll learn more engineering in a week than we could in a month in the office."

"Great idea, Jack!" cried Perry. "Let 's see if we can't locate a job on one of the East River tunnels. I believe there is more excitement in tunnel work than in anything else."

It was too much to expect that both boys would find work together. However, both of them did locate jobs in the subway tunnels, Perry as a timekeeper on one of the sections running under the river, and Jack, despite his limited experience, as a rodman on the part running inland from the river on the Brooklyn side. In both sections compressed air had to be used to keep out the water.

The work was, of course, new to the boys, but they found it very much like sinking a shaft with a pneumatic caisson, except that the shaft was horizontal instead of vertical. They had to go through an air-lock to get into the part of the tunnel that was under pressure. The tunnel itself was a tube of cast-iron plates, heavily ribbed and bolted together. At the forward end of this tube was the shield which took the place of the caisson. But here was where they found the principal difference between sinking a shaft and driving a tunnel. When sinking a shaft, the whole lining of the shaft moves down with the caisson and the new rings of lining are added on top. But in a tunnel it is out of the question to move the lining forward, so, instead, the shield is pushed forward and the new sections of lining are added at the shield.

Now both Jack and Perry had supposed the tunnel shield to be some sort of an excavating machine. They were surprised to find that it was merely a huge cap fitting over the end of the tube. There were sliding doors in the cap through which the workmen could pass out in front and excavate the material ahead to let the shield be

pushed forward. The shield was moved by means of hydraulic jacks, but it was not pushed far enough to uncover the end of the tube, and the new ring of lining was added within the shelter of the "tail" of the shield.

Out in front of the shield was what corresponded to the working-chamber of the caisson. The shield extended forward into a cutting edge, which would make a clean round cut as the shield was pushed ahead. Overhead there was an extension called an apron, which protected the workmen from a sudden cave-in. The silt that was dug out by the laborers was shoveled through the doors in the diaphragm of the shield, loaded into muck cars, and hauled away.

In Perry's section, special precautions were taken to prevent the silt from caving in on the men. A timber wall, or "breasting," was built across the face of the heading, within the shelter of the shield. The breasting was advanced section by section, and then the shield was pushed forward. Figures 1 to 3 illustrate the different steps in the progress of the work.

At the end of the first day of work both boys came back delighted with what they had seen and done. Jack started to tell Perry all about the tunneling shield, and was plainly disappointed when he learned that Perry knew as much about it as he did.

Perry had brought along a blue-print that gave a profile of the course of his tunnel. He laid it out on the table and pointed to the spot where they were at work.

"Pretty tough job right there!" he said. "We are running along a buried ledge. The floor of the tunnel is in rock and the roof in quicksand."

"How in the world can you run a shield through such a combination?" asked Jack.

"Say, you must have the same notion of a shield that I had! I used to think that the shield did the digging, but I found to-day that the men do all the digging in front of the shield."

"Oh, yes," said Jack. "I know that; but how do they blast the rock without blowing up the bed of the river, too?"

"Why, you see," explained Perry, "they dig out over the rock as far as they dare go under the apron of the shield. Then they build a timber bulkhead from the top of the rock up to the apron. After that they tackle the ledge of rock with light blasts of dynamite. Of course, the

doors in the diaphragm of the shield are closed during the 'shooting,' so that there is no danger of flooding the tunnel." (See Figure 4.)

Jack was studying the profile map closely. "Look here, Perry, what does this mean?" he demanded. "There seems to be mighty little cover over your tunnel in some places, but over here near the Brooklyn shore it actually breaks out through the river-bed. It seems to me it is bad enough to have the floor of your tunnel in rock and your roof in quicksand, but how in the world are you going to make out when your floor is in quicksand and your roof in open water?"

"Oh, I found out all about that this noon. One of the men explained it to me. They laid a clay blanket on the river-bed all along the line of the tunnel."

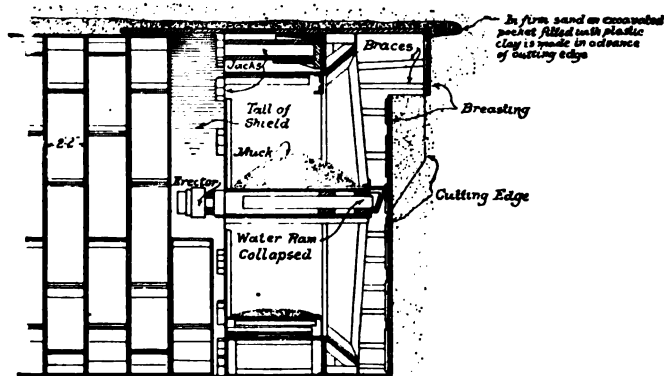


FIG. 1. FIRST STAGE OF DIGGING AWAY THE SAND AT THE TOP.

You'll notice that the deepest part of the river is near the Brooklyn shore. It seems that the tide sweeps around there, scouring out the bottom. The current is so strong that they were afraid it would wash the clay blanket away. That's why they built the stone wall on each side. Then, to hold the clay down, they piled more rock on top of it. You see, that makes a pretty good covering for the tunnel, because water can't run through clay. We ought to have a fairly dry tunnel, and we expect that as soon as we get past this reef the work will go along humming."

"By the way, speaking of an artificial river-bed," said Jack, "they tell me they tried using grout down in our tunnel, something as they did in the Astoria tunnel. First they sank a big steel caisson, large enough to take in both tunnel-

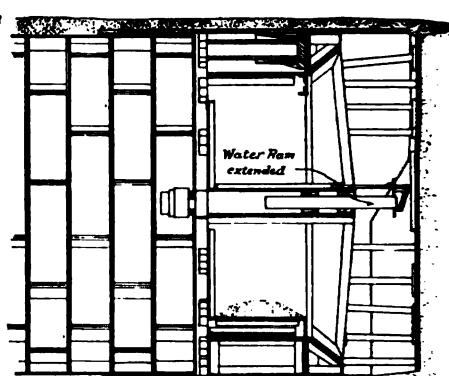


FIG. 2. SECOND STAGE—READY TO ADVANCE THE SHIELD.

"A clay blanket! What do you mean?"

"Well," replied Perry, "this is the way it was explained to me. When they drove the first subway tunnel under the East River, they had a lot of trouble with the air leaks, because the quicksand and soft mud of the river-bed made a very poor cover. Why, one time there was such a big blow-out that it shot a man out of the tunnel right through the mud and up to the surface of the river, and he was picked up by a boat uninjured."

"Oh, yes," interrupted Jack, "I heard about that way out at Thunder River."

"Well," Perry resumed, "the engineers on this job decided that they were not going to have any such trouble this time. They figured that it would pay them to make an artificial river-bed of clay under which the work could be carried on in perfect safety. So along each side of the line of the tunnel they dumped rock to make a pair of parallel walls. Between these walls they dumped barge-load after barge-load of clay. In some places that clay blanket is fifteen feet deep.

tubes side by side. In this caisson were portals for the tubes, but they were closed, of course, with steel plates while the caisson was being lowered, and then the plates had to be taken out to let the tunnel shields through. This is usually a ticklish job, for fear a flood of water and silt or sand will come in and swamp everything. But this time some one hit upon the plan of building a tube of cement out in front of the caisson before opening the portal. A ring of holes was provided around the portal through which pipes could be driven into the sand outside for a distance of thirty or forty feet. Then the idea was to force grout through the pipes and at the same time withdraw them."

"I see!" cried Perry, delighted. "Great scheme! They'd have poles of grout forty feet long sticking into the sand, and I suppose the grout would spread enough between the poles to make the ground pretty hard."

"Yes," answered Jack, "that was the idea; but it did n't work. There was nothing but very fine

sand around the caisson, and it is pretty hard to drive grout through sand."

"I don't see why it should be."

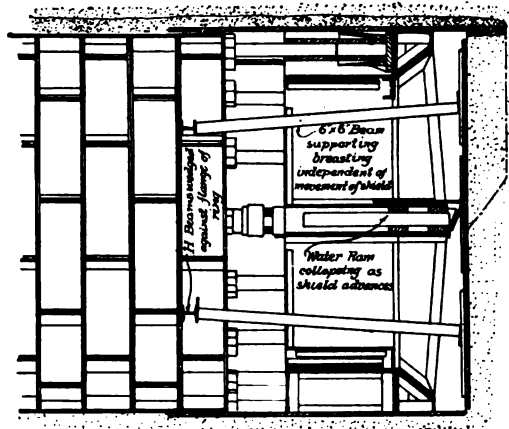


FIG. 3. THIRD STAGE—THE SHIELD SHOWN SHOWN FORWARD.

"Well, fine sand makes a good filter, you know, and what it did was to filter all the cement out of the water, leaving nothing but pure water. They could n't get enough cement into the sand to do any good."

"That's funny, is n't it?" remarked Perry. "I never would have thought of it."

"But I'll tell you what we are doing with grout," said Jack. "You know, when the first subway was run up Joralemon Street, in Brooklyn, the course of the shield could be followed, like the burrow of a giant mole, by the settling of the street and the racking of the buildings along the line. You know the shield fits like a

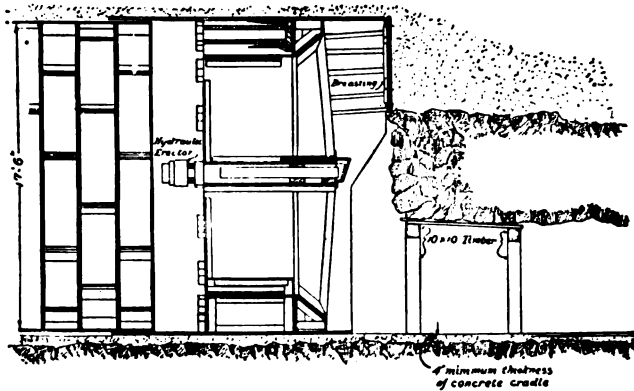


FIG. 4. METHOD OF DRIVING A TUNNEL WHEN THE ROOF IS IN SAND AND THE FLOOR IN ROCK.

cap over the end of the tunnel lining and naturally must be larger in diameter, so the tunnel lining makes a loose fit in the hole cut by the shield. Now you'd never suppose that would

make the slightest difference, way down there fifty feet below the level of the street. But it does. First the ground directly over the tunnel starts to cave in, then the ground just above that falls in, and so a settling starts up that goes on until it is felt all the way up to the surface."

"That shows how solid this old earth of ours is," commented Perry. "It's hard to believe that there are no gaps in the ground anywhere."

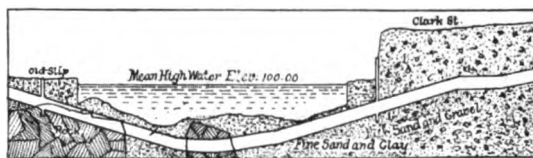
"Yes," continued Jack, "it may take a day or two, but in time the track of the big mole will show in the street overhead. But you can't see a trace of our tracks, because our shields are fixed so as to fill up the space around the tunnel. At the rear of the shield there are holes through which gravel is shot out around the tunnel lining. Then grout is also forced in behind the tunnel plates, leaving the ground in the wake of the shield just as solid as it ever was."

It was less than a week after this that Perry came in late one evening, greatly excited.

"Have you read about it?" he gasped.

"About what?" queried Jack.

"Don't you hear them crying extras? We've had a terrible accident in the tunnel, a big blow-



SECTION THROUGH THE RIVER, SHOWING THE COURSE OF ONE OF THE TUNNELS.

out. Three men blown clear through the riverbed. I was in it myself!"

"What?" cried Jack. "Do you mean to say that you were blown up into the river?"

"No, but the blast blew me right out through the door of the shield. I saw three men disappear through the mud, and I and two others caught hold of the apron, or we'd have gone too. I had to hold on for all I was worth."

"Did you get hurt?"

"No, it was all over in a moment. A great bubble of air puffed out of the tunnel. That reduced the pressure, and then the water started to pour in. We got back through the diaphragm of the shield all right, and ran out ahead of the mud and water to the air-lock."

Jack surveyed his chum enviously. "By George!" he exclaimed, "I wish I'd been there."

"It was a great experience," said Perry. "I never thought, when I read about that fellow who

was shot through the first subway tunnel, that I should come near doing the same thing myself."

"But, Perry," said Jack, "I don't see why you had that blow-out. I thought your tunnel was covered over with clay."

"So it is," answered Perry. "I asked one of the men about it, and he said there might have been a low spot in the clay there. They figure it this way: there must be enough air-pressure in the tunnel to balance the pressure of the water outside. Unfortunately, the pressure of the water in the ground is greater at the bottom of the shield than it is at the top, where the water is not so deep. If the air-pressure in the tunnel were heavy enough to balance the water-pressure at the floor of the tunnel, the air would bubble out at the roof. That's why we have to have a solid cover overhead—just to take care of this excess air-pressure. If the depth of clay is not enough to hold down the air, there is going to be a blow-out. We were supposed to have twenty feet of cover overhead to-day, but you see, when they dumped the clay in, they could not tell whether they were getting an even depth all over. There must be some low spots here and there, and I suppose this was a low spot where there was not weight enough of clay to hold down the air. At any rate, it was a blow-out, all right, and it all came so suddenly and was over so soon that I scarcely realized anything had happened."

CHAPTER XVIII

AIR AS A JAILER

JACK WINANS found his work in the night-school very interesting. The only trouble was that he had little time to study, and then, too, his hours at the tunnel were very irregular. Frequently he was kept late for some special work, particularly as he was used as a sort of a handyman for a great variety of jobs. This rather pleased him, although on more than one occasion he had been obliged to hurry off to school without even a bite of supper, for it gave him a wider experience than he could have obtained if he had been confined to one line of work.

It was getting late, one day, when Jack was sent with a message to a man in one of the tunnel sections. He had to go through an air-lock to reach him. Much to his annoyance, he found that a car-load of sand had been derailed right in the doorway of the air-lock, and there was no chance of getting through until the wreck was cleared out of the way.

But Jack knew another, though longer, route. He would go through the north-bound tube. There was a cross-drift connecting the two tubes

about two hundred yards from the locks. He would go up through the north-bound tube, cross over to the south-bound tube, and come back to the point where he was to deliver the message.

In the bulkhead across the north-bound tube there were two locks, one large one for the cars of spoil (the waste material obtained in excavating), and the other a small one, not more than three feet in diameter, for the men to go through. No work was being done on the north-bound tube, and the locks had not been used for some time. When Jack crept into the lock, with a candle for a light, he found the floor of the lock covered with old rope, pieces of pipe, and a varied collection of junk. However, there was plenty of room for him to crawl through. So he slammed the door shut behind him and turned the outlet-valve.

The handle of the valve was merely a socket-wrench, and he had to take it with him to open the inlet-valve at the other end which would admit compressed air into the chamber. He crept over to the other end of the tube, fitted the handle to the stem of the valve, and turned it. There was a hiss of air rushing in, and in the same instant he was plunged in darkness. The blast of air had blown out the candle. Jack fumbled nervously in his pocket for a match, but not one could he find.

"This is a fine pickle!" he muttered to himself; "but I might just as well go on."

Although that section of the tube was very sparsely lighted, he could easily grope his way along, so he kept on opening the air-valve. But strange to say, it took an endlessly long time for the lock to fill. Finally he realized that there must be a leak somewhere. It occurred to him that maybe he had failed to close the outlet-valve completely.

He started back for that end of the lock, when, as luck would have it, his foot caught in a tangle of rope and pitched him down on his face. In his excitement, he dropped the valve-handle.

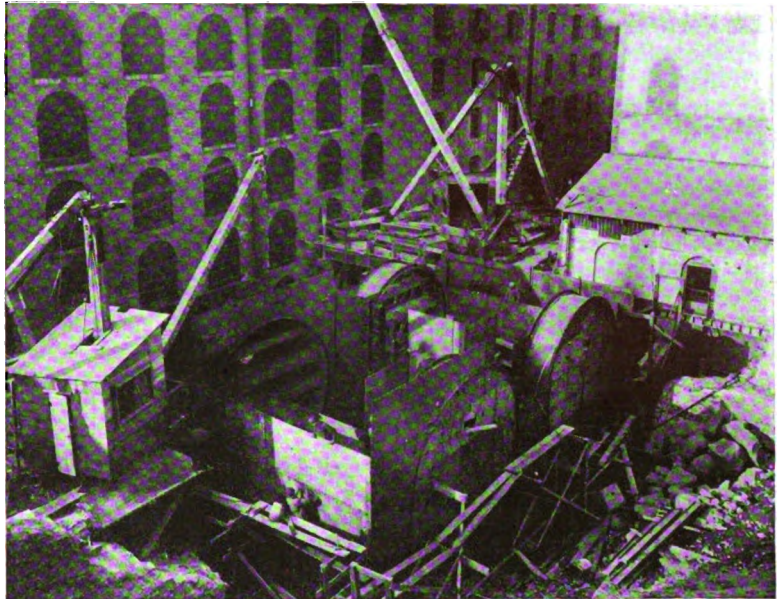
Now thoroughly alarmed, Jack felt all around for the wrench, but he could not find it. Several times he thought he had it, but each time his find proved to be a piece of junk. The longer he looked, the more frantic he became. He tore away at the junk pile in desperation, but it was like looking for a needle in a haystack. Finally, he had to give up the search, but he was in a frenzy now. He scrambled over to the outlet door and began tugging at it with all his might. There was no visible latch, but the air-pressure in the chamber was heavy enough to hold the door shut despite his utmost efforts. Back he struggled to the other end of the lock and flung

himself at the door there, but that would not yield either. The air-pressure in the tunnel on the other side was sufficiently greater than that in the lock to hold him prisoner.

Thoroughly exhausted, Jack sat down there in the dark and pondered over his predicament. What could he do? This was a little-used part of the tunnel. There was small likelihood that any one would come across him there for days. No danger of his smothering, to be sure, with all that air pouring through the lock, but would n't he starve to death? He must find that valve-handle. He must keep on hunting for it—a hopeless search, maybe, but it was better to be doing something than to sit there cooped up in that narrow black chamber brooding over his fate. So he started a thorough and methodical exploration of the litter of junk.

Two hours elapsed before the superintendent learned that his message had not been delivered. "Funny!" he said. "Jack is such a reliable fel-

lowed for him. Finally, the superintendent thought himself of the north-bound tube. He had



SINKING THE CAISSON FOR THE TUNNEL SHAFT. THE CIRCULAR BULKHEADS SHOW WHERE THE SHIELDS ARE TO START.

no idea of what Jack would be doing in that part of the tunnel, but as he might be there, he meant to make a thorough search.



AN INRUSH OF MUD FOLLOWING A BLOW-OUT.

As the superintendent neared the bulkhead, a violent hammering attracted his attention to the air-lock. He noticed the hissing outlet-valve and immediately closed the pipe. Then he locked himself through to the other side of the bulkhead by way of the large air-lock. But before he had reached the other side, enough air had accumulated in Jack's prison to equalize the pressure on both sides of the inlet door. The door had yielded to Jack's push, and he had escaped from his dungeon. But he was so used up by that time that he could barely walk.

"Well, Jack," remarked the superintendent, when he had heard the whole story, "you've had a trying experience,

low; I believe something must have happened to him."

A search was instituted. High and low they

but it has taught you the danger of carelessness, I guess."

"Indeed it has!" answered Jack.

CHAPTER XIX

A VISIT FROM OLD ACQUAINTANCES

"MR. EBENEZER BILLUPS and his wife to see you," announced the office-boy.

"Billups? Billups?" puzzled Mr. Barto. "I don't recall any one of that name. But show them in."

Presently a powerfully built man strode into the room, followed by a rather timid old lady.

"Howdy, Mr. Barto!" he cried, extending a horny fist. "Guess you 've forgotten me and Judy, as had the farm out at Thunder River."

"Well, well!" exclaimed Mr. Barto. "Aunt Judy and Farmer Billups! Oh, no, I have n't forgotten you. It 's mighty good to see you again. Sit down, won't you, and tell me all about Thunder River. By the way, how 's the dam holding out?"

"Say, I 've got to hand it to you, Mr. Barto!" exclaimed Mr. Billups. "You made a good job of that dam, and I told 'em all you could never do it. She 's holding all right. Why, last spring we had the biggest freshest I ever seen. The dam up at Blaney's went out, but your dam stood up as solid as a rock."

"Of course it did," said Mr. Barto. "I don't take any credit for that. All we did was to dig down far enough to anchor the foundations to bed-rock. The only reason the first dam failed was because the engineer did n't have money enough to put good foundations under it. But tell me, what brings you so far from home?"

"Well, crops have been fine since they got that irrigation scheme finished, and me and Judy, we thought we 'd take a trip back to Vermont, where we both come from twenty years ago, and see some of the old folks again. Judy, she was plumb bent on coming to New York to see you about that good-for-nothing Jack we used to have on the farm."

"Oh, Ebbie!" interposed Mrs. Billups, "he was n't good for nothing. He was a fine, manly fellow, only you were too hard on him!"

"There you are!" cried Mr. Billups; "women are so soft. That 's the way she goes on whenever I say anything about the boy. To think we took him out of an orphan-asylum and fed him up and clothed him and sent him to school, and then the rascal runs away!"

"But Ebbie," protested Mrs. Billups, "you know you did n't—"

"Yes I did, too!" retorted Mr. Billups. "I treated him fair enough. It 's no use to quarrel here, Judy. I say he was no good. He was n't square, and I was glad to be rid of him. But I give in to you and let you come here to bother

Mr. Barto. Now I hope you 're satisfied. They say," turning to Mr. Barto, "as how the boy come to you here; and Judy wants to know, can you tell her where he is now?"

"He 's in Brooklyn," replied Mr. Barto.

"In Brooklyn!" exclaimed Mrs. Billups, delighted. "Ebbie, we 'll go right over and see him."

"I 'm sorry to say you can't see him now," said Mr. Barto, looking at his watch; "he 's underground."

"Buried?" shrieked Mrs. Billups.

"No, no!" Mr. Barto hastened to reassure her. "He 's very much alive. He 's working on one of the subway tunnels over there, and you would n't have a chance to see him before six o'clock. In the evening he goes to night-school."

"There! what do you think of that, Ebbie?" said Mrs. Billups, triumphantly. "A no-account boy would n't be spending his evenings at school. I told you he would amount to something!"

"You 're right, Mrs. Billups," spoke up Mr. Barto. "That boy has the right stuff in him. He 's the most independent fellow I ever came across and won't let me help him a bit. Even his chum, Perry, whose father has lots of money, can't do a thing for him. He 's doing fine work in the tunnel, and stands high in his studies. When he gets through school, there 's a good position awaiting him right in this office. The men he works for think a lot of him. In fact, he 's quite a hero since he saved the lives of half a dozen of them a couple of months ago."

Mrs. Billups' face was fairly beaming, and she kept nodding her head triumphantly at her husband, who seemed somewhat uncomfortable.

"They were sinking a shaft for the ventilation of the subway," Mr. Barto went on. "The caisson was down quite a ways—"

Here Mr. Barto had to stop and explain to Mrs. Billups the nature of a caisson. It is not probable that she obtained a very clear mental picture of the situation, but she had a vague idea of a group of men in a big box far underground who were kept from being drowned out by means of air pumped down to them.

"It seems the pumping plant was insufficient for the work," Mr. Barto went on. "They had great difficulty in getting more than four pounds pressure down there. The shaft was located down at the bottom of a hill. About two months ago we had a terrible rain-storm. It was a regular cloud-burst. The streets were flooded. The storm sewer on the next street above the subway shaft burst, and the water came pouring down the hill and into the shaft."

"Right on the men?" exclaimed Mrs. Billups.

"Oh, no; they were in the caisson, you know. Jack had just come up from below when he saw the torrent pouring down the hill, and he knew instantly what it meant. If the water filled the shaft above the level of the air-lock, the men would be trapped below until pumps could be

way of telling the men below what danger they were in. All he could do was to signal to them to come out.

"It's taking me some time to tell you all this," continued Mr. Barto, "but Jack did n't stop a minute. He just jumped into that air-lock and carried the message down to the men himself. It was a small air-lock, not more than two at a time could go through. Jack stayed down there until he had hustled every one out. He was the last one to come through, and by that time the water stood six inches above the top of the air-lock. The men could n't have got him out if they had n't built a dam around the top door of the air-lock with bags of cement. Now that showed real nerve, I say. You'll not blame me for being proud of the boy."

Aunt Judy got up and shook her finger in the big man's face. She was trembling with excitement. "Ebenezer Billups, what have ye got to say?" she demanded.

Farmer Billups was evidently having a struggle with his obstinate self. He shifted uneasily.

"Mr. Barto," he said, "where did ye say Jack is working? Don't care if I can't see him now, I'll hang around till he comes out."

"Oh, Ebbie!" cried Aunt Judy, with delight.

"Now, Judy," said Mr. Billups, "that tunnel ain't no place for women folks to be hanging round. I'll take ye back to the hotel, and then I'll go and fetch Jack."

"I can get a message to him by telephone," suggested Mr. Barto.

"No, thank ye. I'd ruther see him myself first." And Farmer Billups strode out of the room

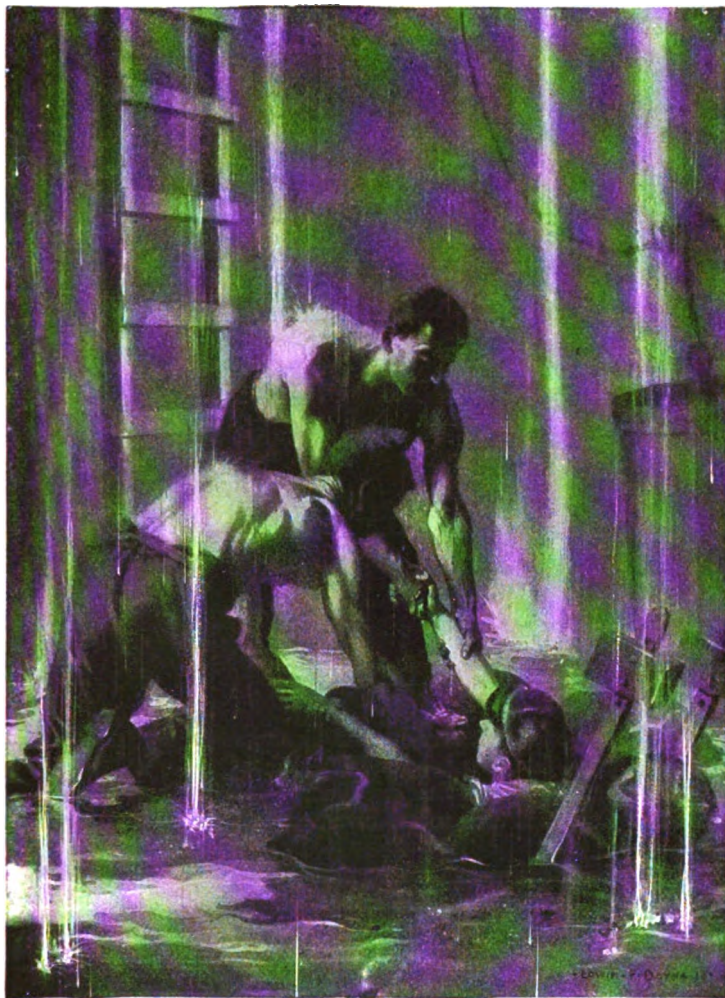
with little Aunt Judy keeping up a lively chatter at his heels.

Late in the afternoon Mr. Barto's telephone-bell rang. It was Jack.

"Hello, Mr. Barto! You remember Farmer Billups, don't you? He's in town with Aunt Judy at a hotel. We're going to have a sort of family reunion there, to-night, and he wants you and Perry to join us at dinner. Can you come?"

"Sure! you can count on me," answered Mr. Barto.

THE END.



"'JACK WAS THE LAST ONE TO COME THROUGH.'"

installed and the water pumped out. But worse still, the doors in the air-lock were held shut merely by the air-pressure inside, and that was only four pounds to the square inch. It would take a depth of but eight feet of water over the air-lock to force those doors open. Then what would happen to the men! There was n't a moment to spare. They must be got out of there at once. Ordinarily there is a telephone to the working-chamber of a caisson, but there did not happen to be any at this shaft, and there was no



THE PLAY

BY ANNIE CHUNN CANDEE

We 've cleared a space within our barn, put screens and awnings by,
And turned a box down for a stage, just Eleanore and I.
We act the fairy tales sometimes, and stories that are true,
But best we love to write our plays and then to act them, too!

Our attics have to be ransacked for costumes that we share;
Our mothers help, and oftentimes my brother's clothes I wear.
He always comes and brings his friends and sits up straight and tall,
With little Dotty at his left, who brings her dollies all.

The play our audience likes the best is one we wrote ourselves:
We journey forth in Fairyland to visit sprites and elves.
A gown of blue the princess wears, a larkspur in her hand,
The knight's green hat and gold-trimmed coat we think are very grand.

We have some wild adventures there—a right brave knight am I;
The Princess Eleanore I save whenever danger 's nigh.
A dragon was our pussy-cat, but she *would* run away!
She 'd rather chase a little mouse than act in any play!

So "make believe" are dragons now—exciting things they do.
Then Eleanore and I take turns at knight or dragon, too.
Our audience is quite polite, and, when the curtain 's drawn,
Always invites us out to play some games upon the lawn.

SILVERHEELS

BY GABRIELLE E. JACKSON

Author of "Denise and Ned Toodles"

CHAPTER VI

THE WANDERER FINDS A ROOF

FOR a moment, May Lingle stood rigid, too terrified by the sight before her to move. Then crying in a voice full of sympathy, "Who are you? Oh, who are you? What is the matter?" she let fall her armful of books, dropped upon her knees beside the unconscious boy, and laid her hand gently upon his arm.

"Silver. Silver, old fellow. Yes, I 'll come soon. Just wait till—till—" and the words ended in incoherent mumbling.

"Oh, is he yours? Are you his?" she asked, turning to the horse. "*Can't* you speak and tell me who he is, and where he came from?"

The horse looked at her with those wonderfully intelligent eyes, and gave a loud neigh. The neigh roused the boy as nothing else could have done. Slightly raising himself upon one arm, he murmured:

"What is it, Silver? Is anybody—is anybody—hurting you? Where are you? Where—where are—you?"

A low nicker was the answer as the horse reached toward him to touch his face and hands with a soft muzzle. Gentle as was the caress, it was sufficient to topple the lad backward.

"Water! Wa-ter," he murmured pitifully.

"Oh, you are thirsty, you poor thing! I 'll bring you a drink right off," and hastily catching up her basket, she took from it her little enameled drinking-cup, and ran as fast as her feet would carry her to the pond. Returning with the cup full of refreshingly cool water, she knelt down to place the cup to the parched lips. He drank eagerly and begged:

"More! More!"

"Oh, have some of my milk, do! I 've lots here," cried the little nurse, pouring some milk from the flask the basket held. Like the water, it was swallowed eagerly, for, little as May guessed the truth, the boy was nearer death from starvation than any other cause. After drinking the milk, he revived a little. Delighted with the results of her ministrations, May took from her basket a slice of bread thickly spread with currant jam, and, breaking it, fed it bit by bit to her charge. A hungry animal could hardly have eaten more ravenously, and the food soon disappeared.

"I 'm so glad you feel better," said his nurse.

The boy looked at her in a dazed sort of way, and answered faintly, "Yes, we 're goin' on pretty soon. When I feel—feel—better. I—got hurt."

"Oh, where?" cried May, compassionately.

"Foot."

May turned quickly to look at the injured member, and even to her inexperienced eyes the condition of the ankle was appalling.

"You poor, poor boy! Does n't it hurt you just awful? I must go tell Mama about you right straight away, and she 'll come up here and take care of you. I am so sorry for you!" and tears of sympathy ran down May's cheeks.

"Don't cry. Please don't!" whispered the boy. "If I could get a little help and something to make me a little warmer nights, I guess I 'd be all right. It 's cold here," and the poor half-starved, half-frozen little waif patted encouragingly the little maid who had come upon him in his dire extremity, and was crying because he was hurt. Had she not come just as she did, perhaps not many more hours of pain and fever would have been needed to end this story right here. Had it not been for Silverheels, he must certainly have starved, for the only food the boy had eaten since the scanty luncheon the previous Saturday, and the food begged from the farmhouse, had been the basket which the horse had stolen from the Lingles' back porch and brought straight to his little master, this act being the outcome of some of the clever tricks the lad had taught him.

"I 'm going for help this very minute!" cried May. "I won't be long." She had gone barely a hundred feet from the place when she heard a familiar voice, shouting, "Whoa! Whoa!" And in another second, a very excited little girl was saying to her father:

"I 've found him! I 've found him! He 's in the ice-house in the woods back there. He took my basket right in his mouth and made me follow him, and then I found *him*, all hurt and sick, with his leg broken, and he can't walk, and oh, do please come quick and take him home, so that Ma can take care of him, and—" But May's breath gave out.

"Great Uncle Job! What are you talking about, and what are you doing up here at this hour of the day anyhow? Why are n't you at school?" he demanded.

May started off full tilt once more, but was brought up short before she had a chance to gallop quite out of reason. Finally, Mr. Lingle got the story straight, and called to Miah:

"May 's found that horse and his owner 'too! Fetch up the span with the stone-boat, for he 's hurt."

Hurrying along with the eager child, he soon reached the ice-house, but the boy had again lapsed into unconsciousness.

"Poor little chap! Poor little kid!" said Mr. Lingle, tenderly. "George, but that is a nasty sprain! Gather up a lot of leaves and pile 'em on the stone-boat, May, and we 'll ride him down to the house as gently and as fast as we can."

Then the boy was laid tenderly upon his rude conveyance, the horse watching every movement narrowly, and springing forward as Miah started the span. No rope was necessary to lead him this time, for they were taking from him the only one he loved in all the world. Reaching down, he put his muzzle close to the dear, unresponsive face and nickered softly, as though asking where he was going.

"Oh, see him, Daddy! See him!" cried May. "Is n't he a darling?"

"Guess we won't lose him this trip, and I 'll bet five dollars that is why he broke bounds—just to get back to that little feller," said Mr. Lingle, his eyes growing moist at the sight of the splendid creature's devotion.

The arrival of a cavalry regiment could hardly have created greater excitement at the quiet farm-house. But good Mrs. Lingle was equal to the emergency, and within the hour the little waif was resting upon a snowy cot in the wash-house, for Mrs. Lingle dared not take him into their own house until sure that it would be safe to do so. Tears filled the good man's and woman's eyes as they worked over him, for up in the little churchyard was the tiny grave of their first-born, who would have been this lad's age, had he been spared to them.

From the moment the boy was carried into the wash-house, the horse mounted guard at the door, and no amount of coaxing could entice or urge him away from his post. When Mr. Lingle strove to lead him to the stable, he rebelled vigorously.

"Well, if you are so determined not to lose sight of him, I 'll give in, and since you 've got to eat and sleep somewhere, I may as well turn the wash-house into a stable, and be done with it." So, bringing a bundle of straw from the stable and a boxful of oats, he placed them in the house, whereupon the horse promptly took possession, and made no further trouble.

"Why, I was scart most to death of him, but I

certain do think he must be half-human!" cried Mrs. Lingle. "I declare he watches that boy like a cat watches a mouse, and I do believe he 'd stamp on us if he thought we was a-goin' to hurt a hair of his head."

As the boy had said, "a little help" was what he needed, and under Mrs. Lingle's skilful nursing, and the little girls' untiring devotion, he soon began to mend and gain strength, though the foot was in very bad shape. After three or four days, he looked like a different lad, for the sunken eyes now had some life and brightness, and the poor emaciated body had gained a little strength.

"Well, sonny, you are getting better, eh?" asked Mr. Lingle, as he entered the "hospital" one noon, bearing a big bowl of hot beef-tea. "You 've had a tough time of it, and no mistake," he added, as he drew a chair up to the cot and laid his hand gently upon the boy's forehead to feel if any traces of the fever remained. It was moist and cool. The horse had backed off a little to eye him somewhat doubtfully.

"Yes, sir. Thanky, sir. You and the lady and the little girls have all been mighty good to Silver and me, and you bet we 're grateful for it, and will prove it if you 'll give us a chance when I get well. Won't we, old boy?"

"Hoo-hoo-hoo-hoo," nickered the horse, shaking his head up and down as though confirming his little master's words.

"Then come here and *shake* on it like a man. You ain't got nothin' to be afraid of *now*; he 's our friend!" ordered the boy, whereupon the sagacious creature went close to Mr. Lingle and gravely raised his right fore hoof and held it toward the amused man.

Laughing softly, Mr. Lingle grasped the slender ankle and shook hands as with a new acquaintance. Then he said:

"Well, you know a thing or two, don't you now?"

"He 'll do anything you want him to now. You 're friends for keeps," explained the boy.

"If we are not, I shall want to know why," said Mr. Lingle, heartily. "But, sonny, do you feel strong enough now to tell me something about yourself and him. Where you came from, and where you 're bound?"

For a moment, the boy eyed him doubtfully, as though distrust of his fellow-men had been cruelly instilled. Then his expression changed, and he said:

"Yes, I guess I 'd better tell you all about it, 'cause you 've been so good to him and me, and he trusts you. He 's got sense. He knows who to trust; I never knew him to make a mistake. He trusted the little girl right off."

CHAPTER VII

THE TRAVELERS FIND A HOME

"You see," began the boy, as the horse nestled his head close to him, "I was n't born in these parts, but way up yonder in York State. Pa and Ma had a nice little house there, and Pa worked

in all that howling storm to put it round Bess, 'cause she was 'fraid she 'd freeze. Yes, siree, that 's what she done! And she caught an awful cold a-doin' it, and in two weeks—well—well—she did n't live but two weeks longer, and—and—please, sir, I can't tell you no more about that," and the boy turned to clasp both arms around the



"HE HANDED TO MR. LINGLE TWO FADED, OLD-FASHIONED PHOTOGRAPHS."

for a man that built houses for folks. We did n't have much money, of course, but we was mighty happy. Pa worked hard, and Ma did dressmakin' to help along. She said she had to help Pa to keep Bess."

"Was Bess your sister?" asked Mr. Lingle, much interested.

"No, sir, she was a horse, but Ma set a sight o' store by her.

"Well, we had an awful cold spell one winter, and one night when Pa was away working on a job in the next town, there come up a regular blizzard. Cold? Gee! we near about froze ter death that night! Could n't seem to keep warm nohow. But what do you think Ma done? She took a great big quilt and went out to the stable

great, warm neck so close beside him, and bury his face in the silky mane.

"There, there, sonny! Never mind that part. Don't you take to feelin' so bad, and don't try to tell me any more just now if you don't want to," said Mr. Lingle, patting the lad's shoulder comfortingly.

"But I do want to," came in a smothered voice from Silverheels' mane.

"Well, take your time about it, and tell away if it eases your mind any, but drink a little of this, 'cause it 'll chirk you up wonderful," and the good man poured some of the hot beef-tea into a cup and held it to his patient's lips, the horse watching every move.

"Say! that does strike a feller where he lives,

don't it?" and the boy smiled through the tears which still hung upon the long eyelashes.

"It sure does!" Then the big man eased the small one back upon his pillow, and afterward turned to give Silverheels a caressing pat before he resumed his chair. Moving still closer to the cot, he took the thin hand in both his big, strong ones, and said:

"Now I 'll hold fast to you, and then you 'll know that the hard times are past for you and Silverheels; 'cause we can't let a little chap and such a splendid big horse want for anything, no, indeed, we can't!"

Presently the boy resumed:

"Pa was all broke up when Ma died. I was n't very big, but I remember it, all right. Things did n't go right after that, for Pa did n't seem to care for anything. He just kept gettin' thinner and thinner, and weaker and weaker, till bimeby he could n't work at all. Nothin' seemed to do him no good, and when November came—I can't tell that part, please—but there were n't no home for me no more. Then a man who lived about ten miles from us said he 'd take Bess and I could live with him and work fer my board and keep. Well, it was mostly keep, you bet! His name was Skinner, and for sure he was named all right. He worked and starved old Bess and me nearly ter death. Then, when I was about eleven years old, Silverheels was born, and old Bess did n't live long after that. I 'm most fifteen now. My! but Silverheels was a pretty little colt. I named him for a song I 'd heard once. Ain't it a pretty name? His heels do look like silver, don't they? They 're so white and shiny. He was the cunnin'est little feller you ever did see, and I could do anything with him. We just naturally lived together. Many 's the time I 've slept in his stall, 'cause his straw was a heap softer 'n my bed, and his neck warm and nice in winter-time. Bimeby it come time to break him, and when that old Skinner started in to do that, I just could n't stand for it no longer! Why, he 'd 'a killed him sure. He almost did do it the very first clip. Look at that scar, will you? Where was you hurt, Silver?" asked the boy, turning to the horse.

Silverheels came close and lowered his head until his eyelid rested against his master's hand.

"Now what do you know about *that*?" demanded the boy.

"I wonder he did n't lose that eye," said Mr. Lingle, passing his hand gently across the scar.

"'T would have gone if I had n't saved it. He 'd 'a been killed sure if it 'd a-kept on. But I 'd stood all I could, so I planned to light out and take Silver along with me. It were n't no easy thing to do, neither, believe me! Old Skin-

ner did n't know it, but I 'd been trainin' Silver for months and months, and could ride him hind-end foremost if I 'd a-wanted to. He knew every word I said to him, and minded me just like a dog. And I 'd taught him a sight o' cute little tricks, too. You know he was mine anyway, and I had a right to do it. Well, a dark night came at last, and we lit out as fast as we could put. My, but I felt scared till we was out o' York State! It took us weeks to journey along, 'cause I had to go mostly after dark at first. But bimeby I was sure nobody would know us, and when we hit the Connecticut border, I sort o' felt at home, 'cause Ma was born in this State, and so was Lady Bess, and—"

"Lady Bess?" interrupted Mr. Lingle. "Was that the old mare's name? *Lady Bess*?"

"Yes, sir, but after Ma died, Pa seemed to sort of hate to call her by that name; it made him think so much of Ma. He did n't seem to miss Ma so much when he said just Bess."

As the boy spoke, Mr. Lingle leaned eagerly forward to scan his features. It was not very light in the wash-house, and his face was somewhat in the shadow.

"Do you know you ain't told me your own name yet, sonny? We 've just been callin' you lad, you know," he said.

"Why, that 's so, I ain't, have I? Ain't that funny, though? I guess I was so sick I forgot to, and mebhe I even forgot I had one; it 's so long since I 've heard anybody say it. I 'm Bob Hughes, sir."

"Yes. And your father's name?"

"He was Robert Hughes. I 'm named for him."

Mr. Lingle gave a strange little gasp, then rising from his chair, knelt beside the cot and placed his arms about the thin little figure.

"And do you know what your mother's name was, son? Her maiden name, I mean?" he asked eagerly.

"Course I know it," answered the boy, drawing back as though startled by the man's excited manner.

Mr. Lingle controlled himself, then said:

"Don't be frightened. I ain't goin' crazy if I do act so. Tell me her name, lad."

"Lauretta Kimball, sir. I 've got her picture, and Pa's, too, in my bundle over there. If you 'll please hand it to me, I 'll show 'em to you. Did you ever know 'em, sir? I thought mebhe if I could get into this State, I might find somebody who 'd known 'em, and could tell me something about 'em."

The boy had raised himself upon his arm and was eagerly reaching for the little bundle which

Mr. Lingle held toward him. All his worldly goods were tied up in an old bandana handkerchief. As he fumbled with the knot, he said:

"I don't remember the name of the place Ma came from. Pa told me once, but I forgot it."

Mr. Lingle tried to help him undo the knot, but his own hands trembled strangely.

"Gee," said the boy. "You 're all kinder shaky, too, ain't you? Have you been sick?"

"No, lad, I 'm all right. Open the bundle."

"That 's them," he said, handing Mr. Lingle two faded, old-fashioned photographs. To Bob's utter amazement, the man let them fall from his hands, and reaching forward, swept him, blanket and all, into his arms, as he cried:

"Laurie's boy! Laurie's boy! Thank the good Lord for the mercy shown me this day in bringing her child to my door!" Then without another word, he rushed from the wash-house with his burden, and straight for the kitchen porch, calling as he ran:

"Martha! Martha!"

At this high-handed act, Silverheels gave one bound and a wild snort of protest as he tore after the kidnapper, and as Mr. Lingle's feet struck the porch, Silverheels was beside him.

Mrs. Lingle and the little girls came running out to learn the cause of the excitement, but Mr. Lingle was saying to Silverheels:

"Come along, too, old fellow! Come on. There 's room in my house even for you!" and Silverheels very nearly took him at his word, for he scrambled straight up the steps of the porch.

Rolled in his blanket, Bob was as helpless as a

mummy, and too dumfounded to speak, even if he would.

"Pa! Pa! What is the matter? What has happened?" cried Mrs. Lingle, as all crowded about him and his strange burden.

As soon as he could control his voice, Mr. Lingle told the strange tale. Yes, it was all true. Poor, wandering, little Bob Hughes, surely guided by a tender Father's care, had found the "roof" for which he had yearned, and the "folks" to whom he "sure enough belonged." Never again would he or Silverheels, for whose sake he had suffered so cruelly and endured such bitter privations, want for anything which these newly found relatives could give to them, for the "Laurie" of whom Bob told had been Mr. Lingle's cousin. Many years before, she had married and gone to live in the western part of New York State. News of her death had come, but Mr. Lingle had never learned of that of her husband.

Bob was legally adopted by Mr. and Mrs. Lingle as their son, whereby May and Mab won a brother who never tired of proving to them his gratitude for their championship of Silverheels, although it must be admitted that May was Bob's and Silverheels' favorite. And if ever a horse was in a fair way to be killed by kindness, and utterly ruined by overindulgence, that horse was Silverheels, but he lived many, many years, to love and be loved by all the Lingle family.

Bob was cared for and educated by Mr. Lingle, and in time became the owner of a fine estate near his home, where he raised many beautiful horses of which Silverheels was the proud sire.

THE END.

A SHORT FLIGHT

BY TUDOR JENKS

A GUST swept down from the stormy sky,
And sent a dead Leaf fluttering high,
Sailing, scaling through the air.

How the Leaf rejoiced!

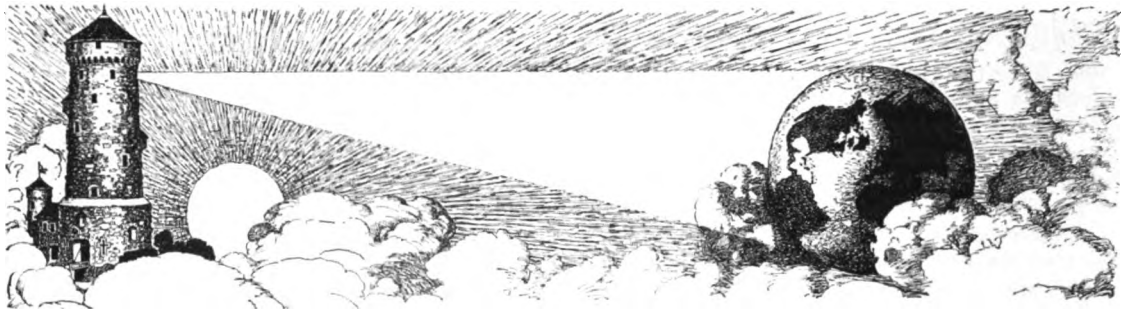
"I do declare
That flying 's glorious! Here, on high,
I look far down on that butterfly!"
Up it sailed above its tree,
Up where the swallows skimmed so free,
Up and up—till it met a gale
That caught the little craft so frail
And drove it where great eagles flew—
Afloat in the autumn sky so blue.

Then cried the Leaf: "Where shall I go?
The world 's before me, *that* I know!"

On and on through the boundless space
The Leaf pursued its giddy race
Till the wind had ceased.

Then it fluttered down
To lie in the field—a bit of brown;
While butterflies, swallows, and eagles, still
Rose or fell at their own good will.

"I see," said the Leaf, "though all *may* rise,
You must have good wings to *keep* the skies!"



THE WATCH TOWER

BY S. E. FORMAN

Author of "Advanced Civics," "A History of the United States," etc.

THE UNITED STATES A LEADER IN COMMERCE

WHILE the nations of Europe have been giving all their energies to war, the United States has been building up its foreign trade at a marvelous rate. At the outbreak of the Great War two years ago, our foreign trade amounted to \$4,000,000,000, exports and imports combined, and we stood third in rank among the great commercial nations of the world. Great Britain was first, with a total annual foreign trade amounting to \$6,000,000,000; Germany was second with a total of \$4,600,000,000. Now the value of our exports and imports is more than \$6,500,000,000, and we have become the leader of the world in commerce. Our exports are valued at \$4,345,000,000 and our imports at \$2,180,000,000. We sell abroad, therefore, about twice as much as we buy, and for the year ending June 30, 1916, the trade balance in our favor was over \$2,000,000,000. If this sum were evenly distributed among the people of the United States, every man, woman, and child would receive twenty dollars. Never before in our history has the balance of trade in our favor been so large. Within a year it has more than doubled itself. Much of the increase is due to the heavy exports in munitions of war, but not all. If we should subtract from the total value of the year's exports the sum received for munitions, we should still have a greater trade-balance than ever in our entire history. Looked at from any point of view, our foreign trade is in a highly prosperous condition. We lead the world, and there seems to be no good reason why we should not continue to hold the leadership which we now enjoy.

And the United States is becoming a leader in finance as well as in commerce. In the vaults of our banks is lying vastly more money than can be

found in the banks of any country in the world. This money is being loaned abroad in large sums to the countries engaged in war. Within the past year our financiers have sent to Europe in the form of loans nearly \$1,500,000,000. The interest which will flow into our country every year from these loans will amount to nearly \$100,000,000. These transactions mean that we are rapidly becoming a creditor nation. Four years ago we were a debtor nation. In 1912 the debts owed by the business men of the United States to the business men of Europe amounted to more than six billions of dollars. Now our total debt to Europe is only three billions of dollars and is decreasing rapidly every week.

MEXICO

WHEN September opened, the war cloud was still hovering over the Mexican border, but was less threatening than it had been for several months. There was little disturbance, and the activity of the bandits seemed to be on the wane. The followers of Villa were officially declared by General Pershing to be few in number. The movement for settling the Mexican difficulties by means of a peace parley was taking shape. Early in August the Mexican government appointed three members to the International Joint Commission, which has for its purpose the peaceable settlement of the differences growing out of the presence of American soldiers in Mexico. A few weeks later President Wilson announced the names of three prominent Americans who were to serve on the commission. Both governments seemed anxious for the commission to proceed with its work as promptly as possible, the understanding being that the sessions would be held at some place on the New England coast. The two great questions to be settled by the commission

relate to the early withdrawal of American troops from Mexican soil and to an arrangement by which the border may be protected from future raids. Other subjects may be taken up at the conference, but if these two questions are disposed of, both governments will be satisfied. For Secretary Lansing has said that it is not our aim to interfere in Mexican affairs. All the American Government desires, he says, is the defense of American territory from further invasion by bands of armed Mexicans and the protection of American citizens and property along the boundary from outrages committed by the bandits. One of the things which it seems certain that the Mexican commission would insist upon was that the American troops should be withdrawn from Mexico.

THE GREAT WAR

At the beginning of the third year of the Great War, Germany, as was told in the last number of *THE WATCH TOWER*, found herself waging a defensive warfare. Instead of pressing onward, as she had been doing for nearly two years, she was falling back, defending herself against the attacks of an advancing foe. But she did not fall back far. All through August she yielded but slightly against the mighty drives of the British and the French, with the result that at the end of the month the situation on the western front was not very much altered.

But the war situation in general was greatly changed by the events of August. Toward the last of the month Italy declared war against Germany. She had virtually been at war with the Kaiser from the day that she had moved her troops against Austria, but no formal declaration of war had been made. Why did Italy declare war upon Germany? The answer to this question has been officially stated by a member of the Italian cabinet in these words: "The main reason why Italy declared war against Germany is that unless she did so, she could not have had an equal voice with Great Britain and France in the peace negotiations." Another event of weighty sig-

nificance was the entrance of Rumania into the war. For more than two years the Rumanians held aloof, refusing to help either the Teutons or the Allies. At last they decided to enlist their strength against the Teutons. They did



Courtesy of the New York "Sun."

MAP OF SOUTHEASTERN EUROPE, SHOWING THE STRATEGIC VALUE OF RUMANIA TO THE ALLIES.

With the entry of Rumania into the war Russia's path to make an attack on Bulgaria is cleared. On the map the dotted line A indicates the Russian front in Galicia; B and C, the points where Rumanian troops have clashed with Austro-Hungarian forces; D, Avlona, where Italian forces are concentrated in Albania; E and F, dotted line, the Bulgarian and Teutonic front in Macedonia.

this in the hope that if the Allies are successful, Rumania will receive as a prize some valuable territory which she has long desired. It will be strange if the action of Rumania does not have far-reaching influences upon the course of the war, for she can throw an army of more than 600,000 well-trained men against the Teutons in the Balkan region.

INDUSTRIAL WARFARE AVOIDED

THE threatened strike of the trainmen, which, as readers of THE WATCH TOWER are aware, hung for many months over the land like a pall, was averted. As soon as it was publicly known that the men had voted almost unanimously in favor of a strike, the Board of Mediation and Conciliation, a body established by Congress a few years ago to settle disputes arising between railroad employees and the employers, tried to persuade the contending parties to come to an agreement. But no agreement was reached, and the efforts of the Board ended in failure. Then President Wilson took a hand in the

strike, and sent out an order that after seven o'clock on the morning of September 4 no trains should be run. Then President Wilson quickly laid the matter before Congress. He had been



RAILROAD EMPLOYEES ENTERING THE WHITE HOUSE, AUGUST 17, TO CONFER WITH THE PRESIDENT.



Photographs by Harris & Ewing, Washington.

DELEGATION OF RAILROAD OFFICIALS WHICH CONFERRED WITH PRESIDENT WILSON.

matter. He summoned the leaders of the trainmen and the managers of the railroads to Washington, and in one of the rooms of the White House he addressed them separately. He pointed out to them the awful results that would follow in the wake of a nation-wide strike, and he appealed to them to settle their differences without resorting to industrial warfare. Both sides listened respectfully to the President, but they did not come to an agreement. The leaders of the trainmen went on with their plans for a

assured by the leaders of the trainmen that they would be satisfied with an eight-hour day, and, if that were granted, there would be no strike. The President was personally in favor of an eight-hour day, so he recommended to Congress the passage of an eight-hour law for men employed in operating trains engaged in interstate commerce. Congress had only three days in which to act, but with whip and spur the measure was hurried along, first through the House of Representatives and then through the Senate, and a few hours before the

threatened strike was to go into effect the Eight-Hour Law was signed by the President. So the strike was called off, and the country was saved from an industrial conflict that might have been as bad as real war.

OUR FUTURE ARMY AND NAVY

ALL through the winter and spring and far into the summer, Congress was busy with plans for increasing the size of our Army and Navy. In

the last days of August the plans were completed. If they are carried out, we shall have a larger Army and Navy than Americans heretofore have ever dreamed of having in times of peace. Our regular Army will consist of about 11,000 officers and 208,000 men. When the National Guard is brought up to the increased size authorized by Congress, it will have in times of peace 17,000 officers and 440,000 men. This will give a total peace strength of about 28,000 officers and 650,000 men. The full strength of this new Army will be available for service in about five years.

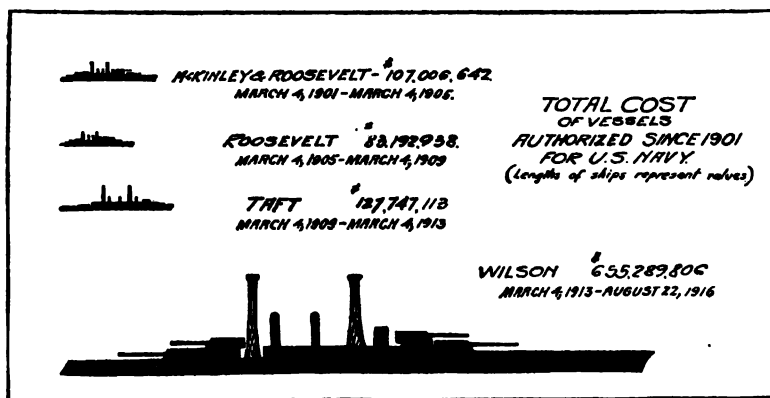
The plans for a greater Navy are dazzling in their bigness. Congress has provided for one hundred and fifty-seven new fighting ships, sixty-six of which are to be built as soon as practicable and all to be built before July 1, 1919. Of the ships authorized to be built, ten are super-dreadnoughts, six are battle-cruisers, fifty are torpedo-boat destroyers, and sixty-eight are submarines. Of the ships that are to be built at once, four are dreadnoughts, four are battle-cruisers, and thirty are submarines. The eight capital ships (dreadnoughts and battle-cruisers) will carry the heaviest guns, and will surpass any ships of their kind yet constructed by any nation. Naval authorities say that when the new program is completed, our Navy "will be the second largest in the world in every unit that goes to make a powerful fighting force."

PAYING THE BILLS

THE enormous increase in the size of the Army and Navy will lead to the greatest tax-bill that the Nation has ever been called upon to face. This was to be expected. Next to war itself, the most costly thing in the world is preparation for war. For the fiscal year ending June 30, 1917, Congress has appropriated \$267,000,000 for the Army, \$316,000,000 for the Navy, and \$25,000,000 for fortifications, a total of more than \$600,000,000. This is \$360,000,000 more for preparedness than has ever been spent before. Of course, this increase shows itself in the tax-bill which the people will have to pay. The total sum appropriated by Congress for the support of all the departments of the National Government during the last fiscal year was less than \$1,100,000,000. This fiscal year the total sum appropriated is considerably more than \$1,500,000,000. This is

the largest amount ever spent in a year by our Government, whether in times of peace or war, and is much greater than the estimated value of the entire United States in the days of President Washington.

After Congress has determined what the na-



tional expenditures are to be, it passes a law for raising the money. Bills for providing revenue must originate in the House of Representatives, because the House directly represents the people, and it is the people who pay the taxes. Revenue bills are prepared by the Committee on Ways and Means, the most important of all the House Committees. This year the task of the Committee on Ways and Means was extremely difficult, for it had to raise more money than the people have ever been called upon to pay. In order to do this it had to retain the old taxes and impose new ones. In the revenue law which it framed and which Congress recently passed, it is provided that the present income-tax shall be doubled, that there shall be a tax, known as the Estate Tax, on inheritances, and that the profits arising from the manufacture of munitions shall be taxed. It also provides for many special taxes. There are taxes on the capital and surplus of corporations; taxes on brokers, pawnbrokers, proprietors of theaters, circuses, bowling-alleys, and billiard-rooms; taxes on documents, such as bonds, sale agreements, and deeds; taxes on tickets purchased for passage to foreign ports, on seats in parlor-cars, and on berths in sleeping-cars; in fact, on almost everything that can be conveniently reached by taxation except lands and houses and personal property. All this is done in order that Uncle Sam may meet his enormous expenses.

THE TARIFF COMMISSION

For many years there has been much talk in Congress and elsewhere of creating a Tariff

Commission to investigate matters relating to foreign trade and to determine what custom duties, if any, ought to be laid on articles brought into our ports from foreign countries. Such a commission has at last been established. In the revenue law just passed, Congress has provided that a commission, to be known as the United States Tariff Commission, shall be created. The commission is to be appointed by the President and is to consist of six members, not more than three of whom shall be members of the same political party. The members of the commission are to serve for a term of twelve years, and are to receive a salary of \$7500 a year. The principal office of the commission will be in the city of Washington, but it may meet and exercise all its powers at any other place. What are the powers of the commission? It may investigate our customs laws, study the existing tariff rates, and find out how they operate. Whatever it may discover along these lines is to be put into the form of a report, and this report is to be sent to the President, to the Committee on Ways and Means in the House of Representatives, and to the Committee on Finance in the Senate. With the submission of its report the power of the commission ends. It cannot fix tariff rates in the way the Interstate Commerce Commission may fix railroad rates. Congress itself is the only body that can determine what the tariff rates are to be. The commission may, however, through its investigations and suggestions, assist Congress in framing tariff laws that will meet the needs of the country in the best manner possible. If it shall do this, it will be well worth the money that will be spent in maintaining it.

PROTECTING THE CHILDREN

OF the many important measures passed by the present Congress, the one that ought to have the greatest interest for boys and girls is the Child Labor Bill. The purpose of this law is to prevent the employment of young children in factories and to regulate the number of hours that older children may lawfully work. The direct regulation of labor matters belongs in most cases not to Congress, but to the State, and many States have already passed child-labor laws. But in a few of the States no such laws have been passed, and very young children have been allowed to work in the mills. For many years there has been a demand for a child-labor law that would apply to the children of *all* the States, but Congress has always refused to pass such a law, many of the Senators and Representatives feeling that they had no right to interfere with matters

that properly belonged to the State. The present Congress, however, has found a way by which it can prevent the employment of little children in the mills and at the same time not encroach upon the rights of the States. It has done this by making use of the commerce clause of the Constitution of the United States. This clause gives Congress the power to make regulations concerning the shipment of goods from State to State. Taking advantage of this power, Congress, in the Child Labor Bill that has just passed, forbids the shipment from one State to another of goods made in factories in which children under fourteen years of age are employed, or in which children under sixteen work more than eight hours a day, or are employed before seven o'clock in the morning or after seven o'clock in the evening. You will observe that Congress has not said that children under fourteen must not be employed in factories; it only says that goods made in factories employing such children cannot be shipped outside the State in which they are made. Since almost every manufacturer wishes to make interstate shipments it is likely that the national Child Labor Law will prevent the employment of little children in every State of the Union.

GREATER FREEDOM FOR THE FILIPINOS

WHEN we took possession of the Philippine Islands at the close of the Spanish War, we declared that it was our purpose to prepare the Filipino people for the difficult task of governing themselves. In accordance with the spirit of this declaration, Congress, at the beginning, gave the Filipinos the form of government which seemed best suited to their needs, changing it somewhat from time to time, as conditions on the island have changed. A law just enacted by Congress gives the Filipinos greater freedom in matters of self-government than they have enjoyed since they have been under our control. This new law reads much like the constitution of one of our States. It contains a bill of rights which guarantees to citizens of the islands almost as many rights as are guaranteed to citizens of the United States, and it provides a form of government which gives to the Filipinos almost as many powers of self-government as are given to the people of a State. At present the Filipinos are virtually governed by the Philippine Commission, which consists of nine members appointed by the President of the United States. The law-making body, known as the Philippine Assembly, consists of a lower house, elected by the people, and an upper house, composed of members of the Philippine

Commission. When the new law goes into effect, all this will be changed. The Philippine Commission will be abolished, and in its stead there will be one person, known as the Governor-General, who will be the executive head of the islands, just as one of our governors is the executive head of a State. He will be appointed by the President. His salary will be eighteen thousand dollars, and he will occupy a palace at Manila free of rental. Under the new law the law-making body will be known as the Philippine Legislature and will consist of two houses, a senate and a house of representatives. The members of both houses will be elected by the people, just as with us. This is the most important feature of the new law. The Philippine Legislature will have power to make laws in respect

to all such matters as it may deem advisable, except that its laws in reference to land, timber, and mining cannot go into effect until they have first been approved by the President of the United States. Trade relations between the islands and the United States will continue to be governed by Congress, as at present. Any bill passed by the Philippine Legislature may be vetoed by the Governor-General, but the veto may be overruled by a two-thirds vote of both houses. If, after his veto has been overruled, the Governor-General still does not approve of a bill, he must send it to our President, who may cause it to become a law by signing it, or may prevent it from becoming a law by refusing to sign it. So, after all, the last word in respect to a law is with the President of the United States.



Courtesy of M. Knoedler & Co.

"WAIT FOR ME, DADDY." PAINTED BY ALFRED ROLL.

NATURE AND SCIENCE FOR YOUNG FOLKS



THE CITY OF RIO DE JANEIRO, FROM THE AÉRIAL CABLE-ROAD.

THE AÉRIAL CABLE-ROAD IN RIO DE JANEIRO

BY M. LANDON REED

ONE of the thrilling experiences of a visit to Rio de Janeiro is a ride on the aerial cable-road to Sugar Loaf Mountain—"Pão de Assucar," as the Portuguese call it. This strangely shaped peak stands guard at the entrance to the inner harbor, rising abruptly more than a thousand feet above the sea.

The aerial road starts from the suburbs of the city, and, after reaching the top of a high hill, continues across the valley to the top of Sugar Loaf Mountain. The car seats about twelve passengers, and as it moves above the clouds the guard reminds us that there has never been an accident in the history of the road.

That fact helps one enjoy, as the clouds roll away, a scene unequaled in variety and beauty—the entrance to the harbor with its forts, the crescent-shaped bathing-beach, giant Corcovado in the distance, and the peaceful and picturesque city below.

The harbor of Rio de Janeiro is acknowledged to have no rival on the American continent.

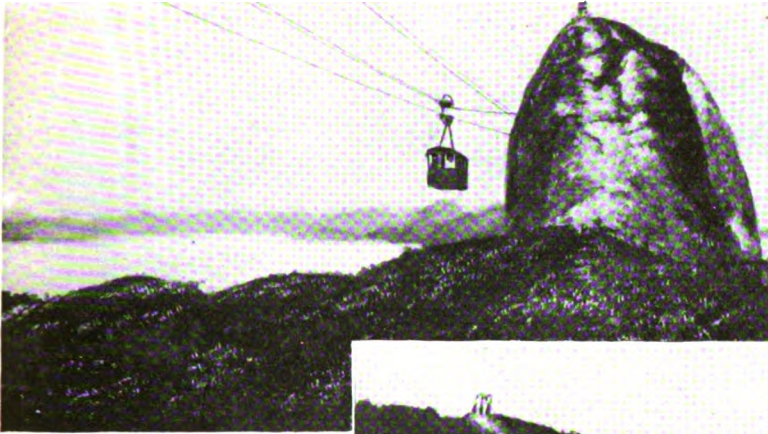
While nature gave the city its wonderful setting, the beauty of the city itself is the result of civic work during the past twelve years. It began with a city government which had ideals and courage. These people of Latin America went cheerfully to work to accomplish what no other municipality has ever done—to rebuild a city. They spared neither effort nor money in carrying out the wise plan to make the city "harmonize with its environment."

No one can understand what that means who has not seen the land-locked harbor of Rio, fourteen miles long.

Our great steamer sailed up to a pier at the foot of Avenida Central, the finest avenue in the city, or, as some say, in the world. It is more than a mile long and over a hundred feet wide, the center adorned with plots of flowers. From our deck the avenue was brilliant at night and beautiful by day, a refreshing breeze always blowing toward the inner harbor from the sea.

The bay runs so far up into the land that the explorers thought it was a river, and, having discovered it in January, named it "Rio de Janeiro." The residents affectionately call the city "Rio."

ria Hill to Botafogo (the crescent-shaped bay in our first picture), and on to the ocean near mighty Corcovado itself. Along this drive, for much of the way, the surf dashes against stone battlements; and on the other side are parks filled with brilliant flowers and waving palms. Looking toward the bay, one sees many islands and rocky crags, while the mountains near by are covered with trop-



HANGING IN SPACE.

Few horses are seen in the city, but automobiles (upholstered in white linen) await on every side the pleasure of the traveler. Street traffic is controlled with perfect quietness and dignity by white-robed Portuguese policemen, who wave a sort of baton in the direction indicated.

One may ride fifteen miles through a scene of constantly changing beauty; around Glo-

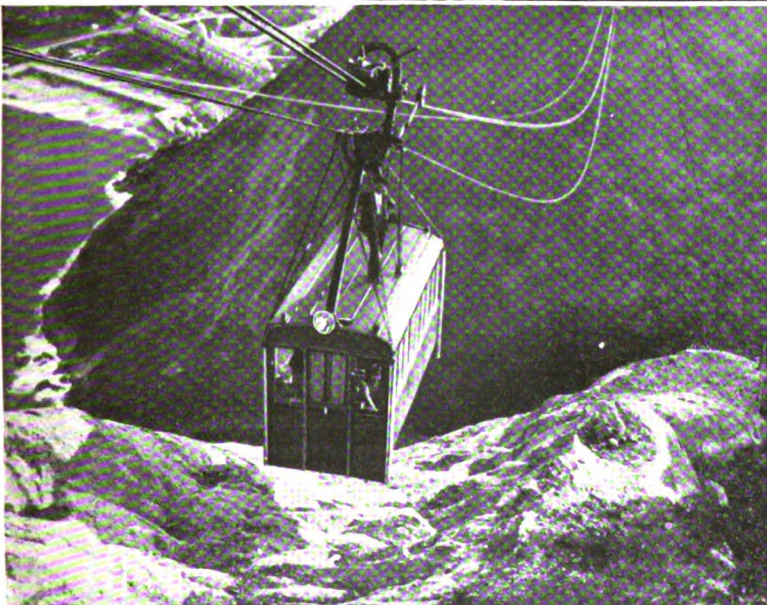


THE AÉRIAL CAR EN ROUTE.

ical trees, shrubs, ferns, and mosses.

At every turn is a different view, but always water, and mountain peaks, and flowers, and picturesque houses. The yards of the humblest homes are perfectly kept; daintiness, order, and cleanliness everywhere. Yet Rio is a tropical city, with more than one million people!

This paternal government, which has beautified the city and made it sanitary, has also regulated the conduct of its citizens. They are, of course, required to observe the law; but also the proprieties. No matter how warm the day may be, a gentleman cannot enter a street-car if he has removed



Copyright by Brown and Dawson

THE SUGAR LOAF CAR NEARING THE SECOND STATION.

his coat. This also applies to the "North American tourist," who sometimes suffers from his strenuous efforts to go sight-seeing while the wise ones of Rio are enjoying their "siestas" in the noon-time of a southern summer day.

PLANTS THAT GET HOT AND KEEP COOL

We do not, as a rule, think of plants as giving out heat, yet at certain times some flowers show



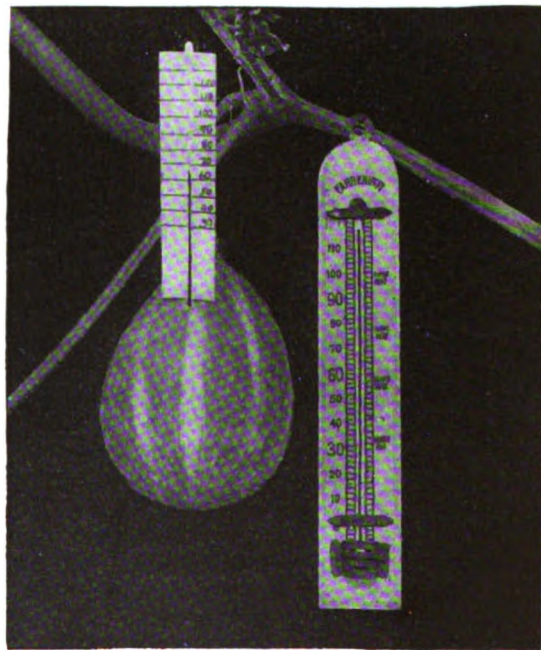
A FEVERISH FLOWER.

The Italian arum, when opening its bud, sometimes shows a temperature of over a hundred degrees.

an astonishing rise of temperature. Most remarkable in this respect are certain kinds of Arum. Just at the opening of the flower, in these cases, there is a great liberation of heat; this is due to the fact that the respiration, or breathing, is at such times very vigorous. Some very interesting experiments have been carried out in connection with these Arums by means of placing a thermometer just inside the spathe. One of the most remarkable cases was that of a species growing on the Mediterranean coast, and known as *Arum Italicum*. The temperature of the air was sixty degrees at the time of the experiment. That inside the spathe was a hundred and ten

degrees! At that time the blossoms, which when expanded are practically scentless, gave out a fragrance suggestive of wine.

Among all the charming plants to be found in the lower Alps there are few more interesting than the Soldanellas, described in NATURE AND SCIENCE in April, 1914. These have pretty bell-shaped flowers, purple in color, and of a very delicate appearance. Few would think that these fragile blossoms are able to bore their way up through a hard crust of snow and ice. Yet this is what they actually do by means of the large amount of heat which the developing buds liberate. It is a most singular sight to see the flower stalks standing up out of the snow, very much as if they had been stuck into the white crust. Where the snow covering is very deep, and the flower stalks are not able to reach the surface, a strange thing often happens. The warmth produced by the growing bud thaws a rounded cavity under the snow, and, in this, the flower will often expand perfectly. Kerner says that these blooms perfect their pollen just as if



A COOL SPECIMEN.

The temperature of the gourd is 60 degrees, while the outside temperature is 110 degrees.

they were in the open above. In all the world there is no stranger flower-story than that of the Alpine Soldanellas.

After reading about these flowers with high temperatures it is interesting to study some of the plants which have hard work to keep cool.

Most people can imagine the conditions under which the cacti of the desert have to live. Quite often, in Mexico, the stones and rock surrounding the plants are so hot that it is quite impos-

As he reached the foot of his home tree, the illusive, opalescent light of dawn changed to a golden gleam here and there, and the first of the ever-busy wild bees buzzed along over his head.



FLOWERS THAT GENERATE HEAT.
The Alpine Soldanella that melts its way up through the snow.

sible to touch them with the hand. Yet if we were to cut a cactus open and insert the bulb of a thermometer, we should find that it was comparatively cool—perhaps thirty degrees less than the temperature of the air. How is this accomplished? Partly because the thick leathery skin, often covered with hairs or multitudes of spines, helps to keep the heat out. But there is no doubt that the living plant has a way of keeping down its temperature in a manner that we cannot quite understand. In one of our pictures we see an experiment that was carried out with a gourd. The day was very hot, and the temperature of the outside air was above a hundred degrees Fahrenheit, yet inside the gourd it was only about sixty degrees. The curious point was that after the gourd was cut it soon became hot, and it was only while it was attached to the living plant that the temperature was kept down.

S. LEONARD BASTIN.

A NIGHT OF NIGHTS

FATHER RACCOON came shuffling through the woods from his night's hunting, sitting bolt upright at every few steps to survey his surroundings, like his near relative the bear, then coming a few steps farther, until his attention was attracted by a twig, which his facile paws caught and turned as dexterously as could human hands, while he smelled it with the closest attention, seeming to gain some news of the wood-world by touch and scent.

He paused as they went by, then looked back along the way he had come, as though their familiar humming had reminded him of the scent of honey that he had noticed from a hollow branch as he came home, but it had been too light to investigate then, as the bees were stirring. But what racoon can resist honey?

It seemed as if he were laying future plans as he sat at the foot of the hemlock tree with his front paws resting on the trunk, looking back, with his wise, deep-set little eyes twinkling and gleaming, as he thought it out. Then he started to climb the tree.

The birds' morning hymn of praise increased to its fullest volume, and the first of the red squirrels ran chattering through the tree-tops. The daylight life of the woods awoke at the first ray of sunlight, just as the night-life of the forest was yawning and drowsy for its day's sleep.

Squirrel paused a moment, as he watched Racoon ponderously climbing the tree-trunk, to hurl spiteful chatterings at him, before following the interlacing branches that formed the overhead highway to the drinking-place at the edge of the pool.

Racoon was not interested, and, beyond one careful, steady look, continued on his way to the top of the tree.

Once he paused opposite the hole in the trunk that held his nest, and several shrill squeals welcomed him on his return home.

Feeling assured that all was well, he continued on his way to the top of the tree, where the small branches sprang out on all sides, making a row of radiating spokes around the central stem. This was the spot he was seeking, and after a preliminary inspection and some arrangement of his toilet he settled himself on his spring-bed of boughs for his day's sleep.

His body quite surrounded the central stem, the branches and bunches of foliage hid him completely from the ground, and it needed sharp eyes to distinguish his striped fur, even when close to him.

The robins and blackbirds flocked through the

woods, attending to their daily affairs, settling within a few feet of the sleeping racoon, and never seeing him until an active, bustling blue-jay, the policeman of the woods, joined them. Hardly had he alighted before he set up a shrill hubbub that aroused every feathered denizen of the woods and Racoon as well.

From experience he knew there would be no further peace after Blue-jay had found him, so while they were all flying around his sleeping-place, shrieking and protesting, he scrambled down the tree-trunk and into his hole, to finish his day's sleep in the midst of his family; and after a time the birds departed about their own affairs.

As the day passed and twilight came, the night-life of the woods again awoke, and the day-life became quiet.

As the moon rose, the young racoons came out of their nest-hole, and played and wrestled on the branch beside it. Their father and mother came down the tree-trunk, and the young ones soon followed.

When they reached the ground, after a careful scrutiny of the surrounding objects the party started off through the woods. They shuffled along, nosing everything that came their way, and with restless paws feeling everything within reach. Their progress through the woods was deliberate, but continued so steadily that they covered a long distance before dawn.

They followed the paths through the undergrowth, that were common highways to the wood-folk, until they came to the pond, where they paused and dabbled their paws in the mud and water for the pure joy of dabbling.

An unfortunate frog that ventured too near was promptly caught by Mother Racoon, while the babies gathered a spray of low-growing blackberries, and washed them in the water until the berries were battered out of shape with much handling. They were then approved by their mother's superior knowledge as being fit to eat.

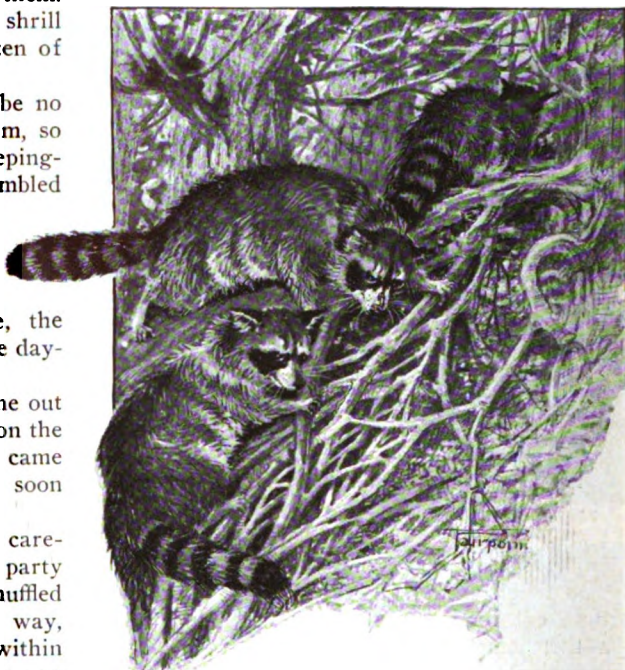
But Father Racoon was calling with low insistent whines, for this was not the main business of the night. This was to be a night of nights, one of the feast-nights of the whole summer, and time must not be wasted on frogs and blackberries, and the pleasures of mud and water.

The party once more got under way, and traveled around the edge of the pond until they came to the corn-field.

The corn was in ideal condition, tender and milky, and they fell to work with a will. They tore the ears down and trampled the stalks, destroying more than they could eat; but when they raided the corn-field they did it well, for it was

unwise to come often, as the farmer did not welcome their visits.

When an ear was torn from the stalk and



"THE YOUNG RACOONS HAD SCENTED HONEY."

stripped of its husks, it was carried down to the pond and washed. It was plunged into the water, and trampled upon, and turned over with those ever-restless paws, until it appeared to be covered with mud; but then it seemed to them to be in the most desirable condition. They ate, and grunted, and whined with satisfaction as they dabbled in the water and devoured the much-washed corn, until the night was far advanced, and that end of the corn-field a wreck. Then it was time for their homeward journey.

Father Racoon, who, being of a shrewd and calculating turn of mind, knew that it was prudent to return by a different path, led the way to the first oak-tree beyond the pond, where the outstretching branches formed a tapestry against the sky and interlaced with other branches until a continuous highway was made into the middle of the forest. He led the way, the others following, stepping in his tracks where it was possible, pausing to sniff at the same leaf or twig that he did, and watching shrewdly any movement that might suggest the presence of an unwary moth or beetle that might be captured.

A still, chill movement of the air floated through the tree-tops, telling of the coming dawn,

and the night folk realized that their time of work and play was drawing to an end, while a sleepy chirp from a bird told that it, too, half realized that day had almost come.

Suddenly Father Racoon paused, an alert nose in the air warning the line following him that something new was there. He seemed to hear the hum of bees as a faint scent of honey reached him, and he remembered his plans of the morning.



"FATHER RACCOON KEPT JUST OUT OF THEIR REACH."

Again it was a little late, for the first white light was creeping up the eastern sky; and, although his fur was long and thick, bees that could find their way to fly could also find his nose and ears and eyes to sting, and would not simply cling and hum in their hive as they would do in the dark.

But the young racoons had scented honey by this time, and their whines and excitement banished his last doubts. He branched away from the highway in the air to investigate a hollow branch a little above.

Just as Father Racoon reached the hollow, a shrill chatter from the end of the branch announced the awakening of Red Squirrel in his summer home, and he promptly sounded the alarm that the Racoon family were still abroad, although past their time.

After a prolonged and careful look at Red Squirrel, Father Racoon dipped a cautious paw into the hole, and pulled out a piece of honey-laden comb, which he dropped down for the other members of the family to devour. They lost no time in reaching the ground to secure that choice morsel.

A moment later the air was full of irate bees, humming, buzzing, darting this way and that, ready to sting any and every thing within reach in defense of their honey.

Father Racoon's ears and eyes and nose were within the bees' reach, and apparently Red Squirrel was doing all in his power to urge them on.

One, two more pieces of honeycomb came out as the result of the energetic thrusts of that facile paw, when the bees got too thick and he had to beat a retreat toward the ground.

Red Squirrel followed, chattering, scolding, dancing from side to side, when a violent barking made Father Racoon's heart stand still.

A sharp cry of warning from him came just as two of the dogs from the farm broke through the underbrush and almost upon the mother and the young racoons, who were intent on the honey.

Father Racoon's wits were alert, and with his loudest whines he noisily scrambled down the tree-trunk to within a few feet of the ground until the dogs' attention was gained and both rushed at the tree, leaping into the air in frantic excitement; but Father Racoon kept just out of their reach, although he appeared too much startled to get away. Up and down he shuffled, still out of reach, but so near that the dogs were sure they could get him at the next jump. As they leaped and barked they attracted the attention of the bees, so the angry insects deserted the racoon, who was comparatively still, to attack the dogs, who were not.

With frantic yelps both dogs rushed through the woods to the farm, with the bees following.

As the dogs' cries died away in the distance, Racoon scrambled to the ground and rushed through the bushes to the next tree with whines and squeals to call his family together. When he reached the upper branches, there they all

were, each having come up a separate tree, and together they found the highway overhead.

But Father Racoon had no mind to return to the home nest, where the farmer and his dogs might look for them, but turned off at right angles to the accustomed highway.

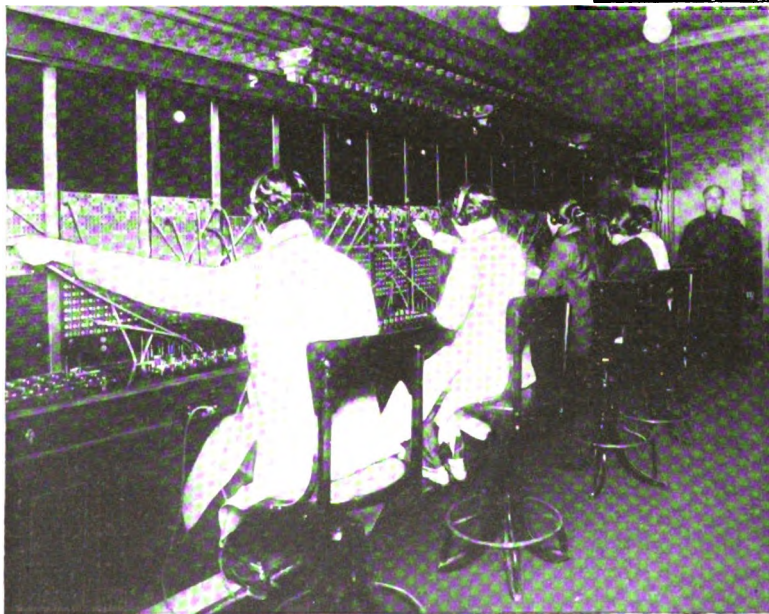
They disappeared with surprising rapidity, and the forest swallowed them up on their way to a new home. For the rest of that season the red squirrel and the blue-jay could find no racoons in the woods.

N. M. PAIRPOINT.

NO TELEPHONE EXCHANGE LIKE THIS

No other telephone exchange may be found in our land like the Chinatown branch at San Francisco. It is a strange mixture of the Orient and the Occident. Seen from the street, it is like a bit of old Peking set down in a modern city, and its curving roof-lines seem oddly out of place between the conventional brick buildings that adjoin it. It is a bit of richly carved and highly colored architecture—a picture from a fan.

The visitor who enters is courteously received by a Celestial in native garb; but a few moments of conversation reveal that he is an up-to-date business man—quite American in everything but his race and costume. It is Mr. Loo Kum Shu, manager of the Chinatown exchange, an electrical expert and efficient head of a staff of fourteen operators. The business done by this central includes all the city and out-of-town calls between the Chinese. There are about a thousand telephones in the Chinese quarter, and calls up to



THE CHINATOWN TELEPHONE EXCHANGE, SAN FRANCISCO.

"A BIT OF OLD PEKING SET DOWN
IN A MODERN CITY."

eight thousand in number are handled every day by the dainty little Oriental girls who sit at their work clad in the costume of their own people. These girls are exceptionally well educated; all of them were taught in the San Francisco public schools, and, in addition to a perfect knowledge of our language, they have a command of the different Chinese dialects that are spoken in the quarter. As the Oriental subscriber does not call by number, these girls must remember the name and number of all subscribers, a feat of memory which would baffle most American "centrals."

C. L. EDHOLM.

FARMS ON EDGE

WHAT might be described as farms on edge are the famous rice-terraces upon the mountain-slopes of the Philippine Islands. These farms, in the shape of ribbons miles and miles long, cover sides of ranges that in this country would be considered about right for goat pastures, so steep and rugged are they. The patient island farmers cultivate every foot of them, however, the ledges extending high toward the summit and covering immense areas. The grade of the terraces is skilfully designed to carry the water down the mountain-side without waste and without washing away the land, so that the crops are benefited by a rainfall which would otherwise wash away all the soil from the rocks.



RICE-TERRACES OF THE PHILIPPINE ISLANDS.

A PARROT'S ADVENTURE

It was an extraordinary experience. The life of a parrot in a strong wire cage is n't so very exciting; but when an energetic hurricane comes along, it upsets the routine of men—and parrots.

This Poll lived in the West Indies, and his in-

terests were confined to the usual diet of crackers and other articles of food included in his vocabulary. But one night a full-grown hurricane came along and made the town where Poll lived look like anything but neutral territory. When the

storm became very severe, the master of the house fled with his family for safety to a large building at the other end of the town, quite forgetting poor Poll. Trees and roofs and all sorts

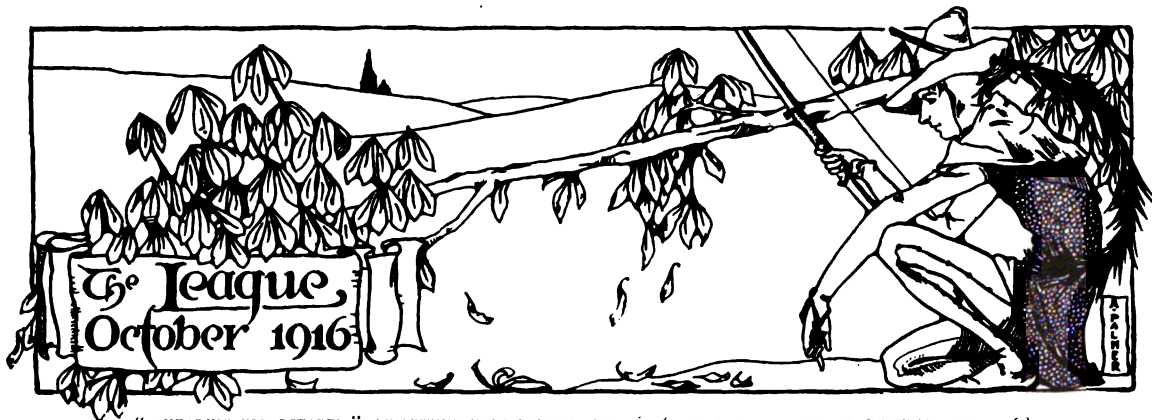
of undesirable objects sailed through the air as if shot from a catapult. Of course no ordinary house could stand that, and the one where Poll lived was not unusual, so down it came. The hurricane did go about its business after a time, though it hung around for eight hours when it might have known it was a perfect nuisance and not in the least welcome. After the wind had subsided and the air was cleared of cocoanut-trees Poll's master went to the place where his house had stood to get—not Poll, but some important papers from his safe. Well, as you see, he found very little left but the roof, and a piece of a neighbor's bureau, and a pretty good mattress. He and some black men began digging among the ruins, hoping to reach the safe. They had not proceeded far when they were startled by a voice saying, "Hello! Good morning."



"AS YOU SEE, VERY LITTLE LEFT BUT THE ROOF."

terests were confined to the usual diet of crackers and other articles of food included in his vocabulary. But one night a full-grown hurricane came along and made the town where Poll lived look like anything but neutral territory. When the

Yes, it was Poll, with not even a feather missing. But he never would tell what happened to him during that dreadful night—perhaps he was indignant at having been left behind by his pre-occupied family. CAROLINE BIRD PARKER.



"A HEADING FOR OCTOBER." BY ARTHUR HOLT PALMER, AGE 16. (GOLD BADGE. SILVER BADGE WON AUG., 1916.)

So numerous and excellent are the contributions to the LEAGUE this month that we are quite content to have even the Introduction squeezed into an inch of space across the page, if thereby room may be made for one more young contestant's verse, or story, or picture, in this October harvest of good things. Each of these little masterpieces of pen, pencil, or camera speaks for itself, and its merits will not escape the keen eyes and earnest appreciation of the zealous young fellow-work-

ers who are deeply interested in the LEAGUE's competitions. How zealous and loyal they are is shown by the letters we are constantly receiving. Last month we quoted a grateful word from an Honor Member. Here is another from one who has just reached the age-limit: "I send my best wishes to all the contributors. I shall still take a great interest in your pages and always remember that it was the LEAGUE that really stimulated me to do my best. Good luck, dear ST. NICHOLAS LEAGUE!"

PRIZE-WINNERS, COMPETITION No. 200

In making the awards, contributors' ages are considered.

PROSE. Gold badge, **Ruth Eloise Brown** (age 12), Ohio.

Silver badges, **Mabel C. Warren** (age 15), New York; **Helen R. Spencer** (age 16), Pennsylvania; **Elizabeth Whitney** (age 13), Massachusetts; **Charles Purdy** (age 14), Oregon.

VERSE. Gold badges, **Janet Boyle** (age 15), New Jersey; **Mary B. Thayer** (age 13), Pennsylvania; **Catherine Parmenter** (age 10), Mass. Silver badges, **Katharine Brooks** (age 13), Ohio; **Corey H. Ford** (age 14), New York.

DRAWINGS. Gold badge, **Arthur Holt Palmer** (age 16), New York.

Silver badges, **Elberta Larkin Esty** (age 15), New York; **Helen Gould Barnard** (age 17), Missouri; **Juliet Chisholm** (age 13), New York.

PHOTOGRAPHS. Gold badge, **Isabelle M. Craig** (age 13), New York.

Silver badges, **Arthur W. Jones** (age 12), New Jersey; **Cecil S. Mapes** (age 12), New York; **Ladner V. Ross** (age 13), Oregon; **Emelie Pope** (age 16), Illinois; **Muriel W. Koelsch** (age 13), New York; **Barbara Willoughby** (age 16), Canada.

PUZZLE-MAKING. Gold badge, **Leona Fassett** (age 17), California.

PUZZLE ANSWERS. Gold badge, **Malcolm D. Warner** (age 15), New York.

Silver badges, **Margaret E. Smith** (age 17), Virginia; **Mary G. White** (age 14), Ohio; **Helen L. Young** (age 14), Minnesota; **Mary I. Leonard** (age 13), New York.



BY ARTHUR W. JONES, AGE 12. (SILVER BADGE.)



BY ELSIE STUART, AGE 15. (HONOR MEMBER.)

"AT THE CORNER."

WHEN SWALLOWS BUILD

BY JANET BOYLE (AGE 15)

(Gold Badge. Silver Badge won June, 1915)

THERE 's the faintest white in the locust,
And a glint of green on the hill.
There 's the rush of brooks through the woodland—
In winter their songs are still.

There 's a deep, deep blue in the pine-trees,
And a butterfly on the wing.
Oh, the breeze sings low o'er the meadows
When swallows build in the spring.

There 's the rippling song of a brown wren,
And the rustle of whispering trees.
There 's a burst of bloom in the lilacs
That is kissed by the silver-winged breeze.

There 's a glitter of dew on the clover—
Love's tears, so the pixies sing.
Oh, the mists lie soft o'er the marshland
When swallows build in the spring.

SUMMER VISITORS

BY MABEL C. WARREN (AGE 15)

(Silver Badge)

"I THINK it perfectly horrid of Jean to bring the twins!" declared Peggy. "Of course we want *her*, but, for my part, I do not want *them*. Whatever could have possessed her to bring them?"

"The letter states she could n't live without them," I replied.

"But think of all our good times spoiled! Jean writes that they are the best little mischievous fellows. Mischievous!" scoffed Peggy. "I 've no doubt but that they 're regular little rogues."



"AT THE CORNER." BY MAX HEBGEN, AGE 11.

The fatal day arrived when Jean and the unwelcome twins were to come. Peggy and I, each in our own canoe, paddled to the boat-landing. Peggy was to bring back our friend, I the twins.

The steamer made the landing on time, and in our excitement on seeing Jean we completely forgot the twins until our visitor exclaimed, "Oh, you have n't seen the little fellows yet!"

I saw a dark frown on Peggy's brow as she scanned the dock for two roguish lads.

"Look, girls! are n't they the dears?" continued Jean, as she lifted the cover from a basket she carried, and revealed to our sight two tiny, pink-nosed, Maltese kittens.

"This one is Bubbs," she explained, placing a soft bit of fur in my hand. "And this one Dubbs," presenting the other to Peggy. Then she added triumphantly, "I know you will be glad I brought them!"

We certainly were.

"AT THE CORNER." BY CECIL S. MAPES, AGE 12.
(SILVER BADGE.)

SUMMER VISITORS

BY HELEN R. SPENCER (AGE 16)

(Silver Badge)

"Oh, Mammy, Mammy! Dey 's come! Dey 's come!" screamed little Rastus, as he dashed through the house to the woodshed where his mammy was washing.

"Fo' de Lawd's sake, Honey, is yo' gone clean crazy, or what?" ejaculated Mrs. White, as she looked up at her son's beaming face. "Who-all does yo' mean?"

"Why, de folks over at de hotel, Mammy. I 'se jes' saw the ol' bus drive up wid Miss Lucy and her mammy and daddy, and Mars' William, and den some mo' what I 'se don't reckmember," shouted Rastus, darting back to take up his usual position at the front gate.

This piece of information pleased Mrs. White as much as Rastus, for she soon joined him at the gate, a broad smile lighting up her dusky features.

The "folks," as Rastus called them, were the people from the city, who each summer visited Glen Valley Resort, which consisted merely of a large and popular hotel. All winter long Rastus looked forward to the time of their coming. Many of them had taken an interest in Rastus, and had done much for him.

Early next morning Rastus appeared at the hotel, his clothes neatly brushed and darned, his face shining, ready to blacken boots, run errands, or in any way earn a little money. "Miss Lucy," the pretty, dark-haired girl, his favorite of the summer visitors, was the first to greet and employ him. She, realizing that Rastus was unusually bright, had decided to ask his mother to go to her city home as a cook, so that Rastus might attend school. Soon her little errand-boy returned, and she suggested going to see his mother. This she did, and finally gained her consent to the plan.

After Miss Lucy's departure Rastus, hugging his mother, cried: "Oh, Mammy! I 'se jes' bress Miss Lucy! She 's de bestest summer visitor eber come to dis town!"

WHEN SWALLOWS BUILD

BY MARY B. THAYER (AGE 13)

(Gold Badge. Silver Badge won October, 1914)

WHEN swallows build, the azure dome
Of blue sky arching overhead
Is turned, when sunset time has come,
To blazing red.

When twilight fills the heav'nly vault
With gleaming points of twinkling light,
The crescent moon comes o'er the hills
So faintly bright.

Then roses bloom in garden beds,
And petals pink the moon doth gild;
Soft breezes fan the weary world
When swallows build.

SUMMER VISITORS

BY RUTH ELOISE BROWN (AGE 12)

(Gold Badge. Silver Badge won September, 1915)

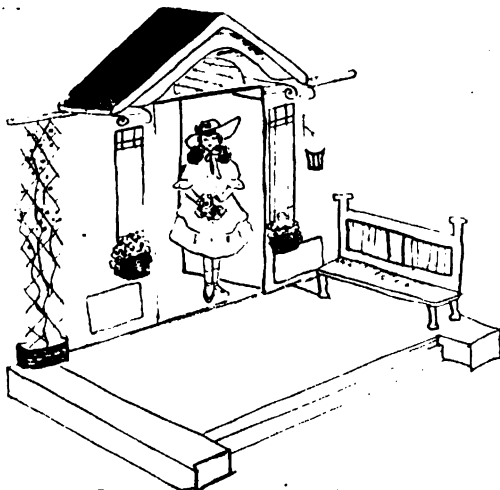
It was the last of July, and we were camping in a small summer cottage by a wooded lake in Maine.

Bob had found a bee-tree, and had succeeded in smoking the bees out, getting a pail of honey.

We all sat out on the shore late that night, and so we children had simply left the dishes and food standing on the kitchen shelf.

I was suddenly awakened toward midnight by Alice, who said she heard some one in the kitchen. I quieted her fears by saying that no one lived within five miles, and that it was practically impossible for any stranger to be in the kitchen.

In the morning, however, we found sticky tracks all



"IN THE DOORWAY" BY ELBERTA LARKIN ESTY, AGE 15.
(SILVER BADGE.)

over the floor of the disordered kitchen, and our honey-pail empty.

Two bears, according to Bob, had been after our honey. Later we found tracks leading off in the direction of the thickest of the woods.

After that, we put a very much stronger lock on the door, and, what's more, always locked it!

However, we never saw or heard of our summer visitors again.

A SUMMER VISITOR

BY MIRIAM NORMENT (AGE 12)

My dear Aunt Alice:

Father and Jane are going to Europe this summer; and if I may, I should like to spend July and the first part of August with you. Please do not think me too presuming, and, if it is the least bit inconvenient, let me know, and I can go with them. If I do not hear from you, expect me on the seventh at five o'clock.

Father joins me in sending love.

Affectionately,

VIRGINIA

AUNT ALICE MANNERS wiped her spectacles, smoothed her white hair, and read the note again.

"Land sakes!" she said to her husband, recalling the flaxen-haired, blue-eyed little girl she had last seen;

"Land sakes! here to-day 's the fifth, and she 'll be coming on Wednesday. We 'll be glad enough to have the child, I 'm sure."

The next two days were busy ones. Aunt Alice prepared for her summer visitor by making gingerbread men and apple tarts enough for an army, and even dressed one of Virginia's mother's old dolls in fresh clothes for its new little mother.

As the five o'clock local drew up, Aunt Alice and Uncle Henry were waiting in the carryall for their grandniece. Only one passenger alighted, a young lady in a blue suit.

"Maybe she missed her train," suggested Aunt Alice.

Just then Uncle Henry made a surprising discovery and whispered to his wife: "That 's Virginia! We ain't seen her, you know, for fifteen years!"

Aunt Alice laughed as she kissed her niece's daughter, but during her whole summer visit Virginia Cabell never tasted a gingerbread man or saw a doll.



"IN THE DOORWAY." BY HELEN GOULD BARNARD, AGE 17.
(SILVER BADGE.)

WHEN SWALLOWS BUILD

BY CATHERINE PARMENTER (AGE 10)

(Gold Badge. Silver Badge won June, 1916)

WHEN apple-blossom time doth come,
And with their scent the air is filled,
And fields are full of buttercups,
'T is then the swallows build.

And when the rippling brooks are deep,
Filled to the overflowing,
When o'er the hills and meadows fair
The south wind 's softly blowing,

With sun a-shining, birds a-singing
Till their joyous hearts are thrilled,
And with all the world in laughter,—
'T is then the swallows build!



BY LADNER V. ROSS, AGE 13. (SILVER BADGE.)
(On the boundary of the U. S. and Mexico.)



BY EMILIE POPE, AGE 16. (SILVER BADGE.)
(The extreme southwestern corner of the U. S.)



BY JEANNE REGNAL, AGE 13.



BY VIRGINIA HEARDING, AGE 14.



BY JAMES O. WINSTON, JR., AGE 14.



BY LUCY POMEROY, AGE 15. (HONOR MEMBER.)



BY C. EVERETT RHODES, AGE 15.



BY ISABELLE M. CRAIG, AGE 13. (GOLD BADGE.
SILVER BADGE WON JULY, 1916.)



BY MIRIAM P. THOMPSON, AGE 16.

"AT THE CORNER."

WHEN SWALLOWS BUILD

BY KATHARINE BROOKS (AGE 13)

(Silver Badge)

In springtime, when the sky is blue
 And butterflies of every hue
 Upon the breezes fly;
 When orchard trees on every side
 Their pink-white blossoms open wide,
 To tempt the passer-by;
 When in the wood the stream runs free
 That in the winter used to be
 With ice all covered o'er;
 When squirrels leave their winter nests,
 Where they have had their season's rest,
 To gather food once more;
 And when, on cloudy, rainy days,
 Lightning flashes and thunder plays,
 That winter stilled;
 When striped bees for honey look,
 And flowers peep from every nook,
 Then swallows build.

OUR SUMMER VISITORS

BY DOROTHY B. CRABTREE (AGE 10)

ONE summer morning I heard very sweet singing outside my window. I looked out, and on the sill were two pretty robins. When they saw me, they flew right over to a big crab-apple-tree which grew across the lawn nearly opposite from my window.

I thought little about it for a time until one day, as I was embroidering in the couch-hammock which hangs on our front porch, I was called into the house for a moment. When I returned, I saw that my embroidery silk was gone.

Sometime after that, I asked my father if he would not put up a swing for me under the crab-apple-tree. He did so, and soon called to me and said, "Come here, and see this nest!" I ran out, but it was impossible to see the nest while standing on the ground, so I climbed up into the tree. Sure enough! there was a robin's nest, and woven into it was my lost embroidery silk! By and by, when summer was over, the birds flew south, and we were very sorry to lose our summer visitors.

SUMMER VISITORS

BY ELIZABETH WHITNEY (AGE 13)

(Silver Badge)

How pretty you are, little summer visitors, as you peep shyly from some hidden nook or nod gaily in the field! You are all joy and beauty, bubbling over with happy life, and dancing joyously with the breeze.

How you do love to hide where people cannot find you, unless they have sharp eyes! They have to hunt and hunt, until suddenly they spy one of your number "right under their noses," and then they wonder where you came from that they did not see you before. Whenever they go to the woods, in the fields, or by bubbling brooks, one of you is always there, from the May-flower in early spring, to the goldenrod in autumn.

And you, violets, you love to frequent a shady stream, and there you hide from intruding eyes, loving the great solitude about you better by far than being put in a vase in a lonely room, however luxurious.

And what place do you love better, wild roses, than a sunny corner of an old-fashioned garden, with soft moss and lichens growing all around you, and bees humming drowsily overhead; or perhaps some cranny in a moss-covered wall, where you can climb over to take a peep at the other side?

Or where would you be better contented, sweet buttercups and daisies, than right out there in the open field, with grass and clover and the gay breeze as playmates?

You all answer you are glad to be where you are, and that is the best way. Be contented with what you have, and you will be happiest then.



"A HEADING FOR OCTOBER"
 BY ANNIE EUNICE MOFFETT, AGE 16.



BY MURIEL W. KOELSCH, AGE 13.
 (SILVER BADGE.)



BY ELEANOR V. D. LUCAS, AGE 11.

"AT THE CORNER."



BY TIRZAH NOYES, AGE 11.

WHEN SWALLOWS BUILD

BY LOUISE PATTERSON GUYOL (AGE 14)

(Honor Member)

WARM-BREATHED June comes gaily laughing by;
 Hilltop and dale burst into rosy bloom;
 Each swallow, wheeling, clipping 'cross the sky,
 'Neath ivy-mantled eave or chimney high
 Seeketh a home;
 Wisteria's purple clusters wreath the porch,
 And flaming poppy of the Orient
 Lifts high its blazing torch;
 Lupin doth border dusty roads with blue,
 Or columbine illuminates with fire.
 Wafted upon the balmy southern breeze
 Syringa's odor mingles with the scent
 Borne from the honeysuckle and the rose,
 Until, when day draws softly to a close,
 Innumerable stars gleam through the trees,
 Lighting the heavens till the golden sun
 Doth rise to greet the radiant world anew.



"A HEADING FOR OCTOBER." BY HARRIET E. FARGO, AGE 12.

A SUMMER VISITOR

(Based upon a true incident)

BY CHARLES PURDY (AGE 14)

(Silver Badge)

A FEW summers ago, a party of us went trout-fishing on the Umatilla River. We camped at a spot several miles away from any signs of habitation, where not infrequently Indians wandered.

Before nightfall we placed bars of soap on a log near the river for immediate use upon our awakening in the morning; then we returned to the camp-fire. The evening meal was completed, and, having drawn straws to determine upon whom the duty of dish-washing should fall, we arranged ourselves in positions more comfortable than artistic around the blazing logs. We had been singing but a short time when our carolings were interrupted by the excited barking of our setter. He would run to the shore and back again. Then the dog, trembling with fright, crept between his master's knees.

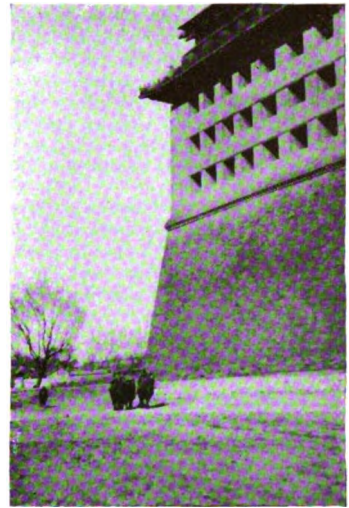
"There must be Indians watching us," remarked one of the party. We agreed with him, but nevertheless built up the fire so that it would shed considerable light, and crept a little closer to it. When it came time to turn in, several of us stood on guard, to be relieved at one o'clock.

The next morning dawned clear and cool. My cow-

boy friend emitted a loud whoop, and out we all tumbled, making a rush for the soap-log and the river. But if we had planned to cleanse ourselves with anything besides river water, we were doomed to disappointment, for—the soap had completely disappeared!

It certainly was not a joke, for there, around our soap-log, were the tracks of a large cougar. Now we understood why our setter acted so strangely the night before. And no Indians had stolen the soap either,—they never had any use for it, anyway,—but our friend the mountain-lion had eaten it! We were sure of it, because we found its marks on the log.

Upon this amusing discovery we returned to a piping-hot camp breakfast, hoping that our summer visitor was enjoying his repast as much as we were ours.

"AT THE CORNER" (OF THE PEKING WALL). BY BARBARA WILLOUGHBY, AGE 16. *(SILVER BADGE.)*

"AT THE CORNER." BY LAURA MORRIS, AGE 15.

WHEN SWALLOWS BUILD

BY COREY H. FORD (AGE 14)

(Silver Badge)

"My dear, you're getting very thin of late;
 Cod-liver oil will add much to your weight.
 You know it's good for you; why hesitate,
 When swallows build?"

"Just hold your nose and soon it will be downed,
 A few more swallows will build another pound.
 This fact remains which you can't get around—
 That swallows build."

"Pretend it's chocolate candy soft and brown;
 Just close your eyes and, smiling, gulp it down.
 'T will do you good, therefore why sit and frown,
 When swallows build?"

WHEN SWALLOWS BUILD

BY JEAN F. BLACK (AGE 15)

(Honor Member)

The sun mounts higher in the sky
When swallows build.
Snow and winter bid good-by
When swallows build.
Boys and girls, along the street,
Gaily chat with friends they meet
Of the coming summer's treat—
When swallows build.

Nines for baseball quickly form
When swallows build.
After school the diamonds swarm
When swallows build.
Parties gay are planned, with care,
For the first day that is fair.
Girls all talk of things to wear,
When swallows build.

'T is the best time of the year,
When swallows build.
Makes you feel you're glad you're here
When swallows build.
Some prefer autumnal views,
All the leaves in brilliant hues,
But, of all the year, I choose
When swallows build.

SUMMER VISITORS

BY LOIS MEIER (AGE 16)

(Honor Member)

WHEN the Mexican situation became intense, and the call came for the United States militia to mobilize, great excitement prevailed in our town, for in it is the

Massachusetts State muster-field. Over all of Framingham's buildings floated the Stars and Stripes, and from between two of the main buildings the flag of Massachusetts waved. On the first day a few troopers rode around the town, selecting other open places for the artillery, and the hospital corps, for the muster-field could not accommodate them all. The next day, from all the main roads to the town, long trucks and heavy army-wagons, which looked very much like gipsies' outfits, drew in. On the broad fields, fragrant with new-mown hay, the brown tents sprang up like magic. On the afternoon trains came thousands of olive-drab-uniformed men, young and old, tall and short, thin and stout. Some companies looked tired and dusty, others eager and fresh, but all marched with heads erect and shining eyes through the crowd of cheering spectators.

Now we present a very military aspect. We awaken to the bugle-call; we fall asleep to taps. At all hours

of the day, militiamen pace through our wide, shaded streets, and spirited steeds gallop along our paved highways and country lanes, carrying proudly their olive-drab-garbed troopers. Anxiously we are awaiting the development of the Mexican situation, for that will determine the stay of surely the largest number of summer visitors which Framingham has had since the Spanish War.

WHEN SWALLOWS "BUILD"

BY DORIS ROSALIND WILDER (AGE 15)

(Honor Member)

My grandma says it's only when you chew your food up fine,
Instead of bolting it to get out with the baseball nine,
That swallows build.

My sister says it's only when you do not seek to drown
Your food with floods of water as you try to wash it down,
That swallows build.

My mamma says it's only when you keep a happy smile,
And, when you're eating, think of cheerful, pleasant things the while,
That swallows build.

My papa says it's only when you do not try to beat
The little boy who lives next door in how much you can eat,
That swallows build.

But what my Uncle Billy says it seems to me is true;
He says that when your food tastes just exactly right to you,

The swallows build!

THE ROLL OF HONOR

No. 1. A list of those whose work would have been used had space permitted.

No. 2. A list of those whose work entitles them to encouragement.

PROSE, 1		
Florence E. Meier	Barbara Roberts	Mildred Palmer
Irene Hamilton	Margaret A. Jones	Ruth Hare
Katherine Wallace	Helen A. Koch	Hugh L. Willson
Martha A. Williams	Mary Radclyffe	Margaret Carlson
Helen Frisbie	Elizabeth Estes	Louise P. Lynch
John L. Scott	Leo Hershendorfer	John T. Taylor, Jr.
Isabel Davis	Edith West	Dorothy Marshall
Dorothy Burns	Samuel Hacker	Dorothy E. Ducas
Katharine Boston	Corinne Ross	Selma Moskowitz
Rhoda Low	Martha Stiles	Brenda B. Bassett
Frances E. Noble	Grace O'Brien	Ada H. Haeseler
Katherine Keenhan	Dorothy V. A. Fuller	Agnes MacDonald
Mary Forbes	Jack Carr	June Davidson
Chloe S. Thompson	Julia E. Parker	Margaret Keir
Victoria S. Sturge	Ruth Gardner	Shirley Brownrigg
Evelyn Henckel	Mary E. Curry	Katharine Bradley
Dorothy H. Leach	Katherine Gauss	Florence W. Daniels
Josephine De Mott	Gladys M. Taggart	Nellie M. Japp
Helene C. Kaufman	Dorothy Blatter	Aileen M. Henderson
Phillips Schneider	Ralph Hawkins	Phillip Hembdt
Hilda V. Robinson	Margaret Grim	Imogene Bishop
Kathleen Murphy	Ruth Geiger	Carolyn Pratt
Roberta E. Taylor	Cora Geiger	John S. Kieffer
Elizabeth Earle	Dorothy Hart	Charlotte Reynolds
Alice E. Hersey	Jeanne B. Lowry	Earl C. Elliott, Jr.
Frances Dabney	Winifred F. Gray	Ruth P. Fuller
Susan Vickrey	Charlotte B.	Frances R. Davidson
James Shea, Jr.	Winifred	Helen McCann
Mildred A. B. Eicker	Alice Murfin	Dorothy Weaver
Margaret Maryon	Mary G. Howard	Edward Podolsky
Josephine Focht	Alice Hearst	Shirley M. Tomes
Helen G. Davie	Rebecca T. Farnham	Thelma Linkroum
Alice L. Chinn	Marjorie Hartman	Winona Auten
Harriet Felsenthal	Clara M. Corum	
Alice Hoyt	Fannie R.	
Ellen M. Faint	Lichtenstein	
	Gwenfredd E. Allen	VERSE, 1
	Dorothy D. Smith	Kathryn A. Lyon
		Ruth Eger



"IN THE DOORWAY."
BY HELEN DAVIES, AGE 17.
(HONOR MEMBER)

Anna Lincoln
Elizabeth Buell
Tom S. Kittrell
Judith Brewin
Sara B. Smith
Sarah F. Borock
Jessie M. Thompson
Dorothy Gifford
Barbara G. Frost
Helen Sherman
Betty Foster
Deborah H. Jones
Margaret A. Kelly
Minna Feibleman
Mattie Cotton
Edith V. M.
Simmonds, II
Elizabeth Peirce
Myrtle Henckel
Margaret Foldes
David Langendorf
Harriet T. Parsons
Mary S. Benson
Olive Sears
Marjorie Dahut
Jean Harper
Margery Hall
Frances Baskin
Marie Mirvis
Margaret Kaiser
Miriam E. Simons
Elizabeth L. Chilton
Queenie Stevens
Amy Lee Lamborn
Mabelle H. Emory
Clinton S.
Bradley, Jr.
Dorothy Hetzel
George R.
Williamson, Jr.
Winifred Emeritt
Edgar Lundin
Marion Ward Smith

Elizabeth A.
Whitman
Naomi E. Walker
Paul Detlefsen
Phyllis K. Kett
Emily B. Newman
Alice M. Cuthbert
Alice S. Waterman
Hilda Hooper
Charlotte Becker
Phyllis Harroun
Paul F. Sullivan
Marjorie Jones
Martha E. Kenyon
Julia Barnard
Francis Bartlett

PHOTOGRAPHS, 1
Billy Mitchell
Helen P.
Loudenslager
Cecile de L. Simonds
Janet Scott
Gardner Leonard, Jr.
Peggy Gantt
Nathalie G. Nelson
Elizabeth Fullington
John Cosgrove
Dorothy M. Lathrop
Mary Patton
Grace Patterson
Jack Scott

Madelaine R. Brown
Julien H. Bryan
Janet Andrews
Roger Williams
Elizabeth Payne
Elsie Huston
Alice Potter
Mabel Fox
Edgar Zeltner
Franklin Cowles

Marie Steele
Henry Sievers

Norman Kastler
Florence Noble

PUZZLES, 1

Leona Fassett
Julia A. Coveney
Charles O. Matcham
Mary F. Child
Willard B. Crosby

PUZZLES, 2

Grace B. Murray
Hope Garland
Charles Montgomery
Maria Chamberlain
Della Schenck

PRIZE COMPETITION No. 204

THE ST. NICHOLAS LEAGUE awards gold and silver badges each month for the best *original* poems, stories, drawings, photographs, puzzles, and puzzle answers. Also, occasionally, cash prizes to Honor Members, when the contribution printed is of unusual merit.

Competition No. 204 will close **October 24** (for foreign members **October 30**). Prize announcements will be made and the selected contributions published in **ST. NICHOLAS** for **February**.

Verse. To contain not more than twenty-four lines. Subject, "A Marching Song."

Prose. Essay or story of not more than three hundred words. Subject, "A Great Idea."

Photograph. Any size, mounted or unmounted; no blue-prints or negatives. Subject, "On Land or Sea."

Drawing. India ink, very black writing-ink, or wash. Subject, "The Picture Maker," or a Heading for **February**.

Puzzle. Any sort, but must be accompanied by the answer in full, and must be indorsed.

Puzzle Answers. Best, neatest, and most complete set of answers to puzzles in this issue of **ST. NICHOLAS**. Must be indorsed and must be addressed as explained on the first page of **THE RIDDLE-BOX**.

Wild Creature Photography. To encourage the pursuing of game with a camera instead of with a gun. The prizes in the "Wild Creature Photography" competition shall be in four classes, as follows: *Prize, Class A*, a gold badge and three dollars. *Prize, Class B*, a gold badge and one dollar. *Prize, Class C*, a gold badge. *Prize, Class D*, a silver badge. But prize-winners in this competition (as in all the other competitions) will not receive a second gold or silver badge. Photographs must not be of "protected" game, as in zoological gardens or game reservations. Contributors must state in a few words where and under what circumstances the photograph was taken.

No unused contribution can be returned *unless it is accompanied by a self-addressed and stamped envelope of the proper size to hold the manuscript, drawing, or photograph.*

RULES

ANY reader of **ST. NICHOLAS**, whether a subscriber or not, is entitled to League membership, and a League badge and leaflet, which will be sent free. No League member who has reached the age of eighteen years may compete.

Every contribution, of whatever kind, *must* bear the name, age, and address of the sender, and be indorsed as "original" by parent, teacher, or guardian, *who must be convinced beyond doubt—and must state in writing—that the contribution is not copied*, but wholly the work and idea of the sender. If prose, the number of words should also be added. These notes must not be on a separate sheet, but *on the contribution itself*—if manuscript, on the upper margin; if a picture, *on the margin or back*. Write or draw on *one side of the paper only*. A contributor may send but one contribution a month—not one of each kind, but one only; this, however, does not include the "advertising competition" (see advertising pages) or "Answers to Puzzles."

Address: **The St. Nicholas League**,
353 Fourth Avenue, New York.



"A HEADING FOR OCTOBER."
BY JULIET CHISHOLM, AGE 13.
(SILVER BADGE.)

DRAWINGS, 1

Virginia Attwell
Louise Sanford
Miriam Eisenberg
Theodora S.
Kaufman
Laverne Sidman
Margaret Kendall
Elmer H. Krohn
Emily P. Bethel
Muriel W. Curtis
Alice Mead
Anne W. Johnston
Alta I. Davis
Marion T. Griggs
Helen Green
Lucie C. Holt
Eleanor Gibbons
J. Asher
Grace B. Cuyler
Richard Gibbons
Virginia Dunn
Eugenia E. Dodd
Edith Dempsey
Mildred Slater
Marjorie Henderson
Herman Dodd
Mary H. Howland
Edith von Steinmetz
Edith H. Tarbell
Lydia T. Hicks
Katherine Lindsey
Jane McKay
Catherine L. Spencer
Elsie B. Huske
Constance Coleman
Doris Johnson
Isabel Percival
Veola Otopalik
Marian
Brackenridge
Thomas A. Horwitz
Stephens Wright
Loretta Bogue
Frances S. Badger
Alfred Adams
Richard Waelchi
Muriel Cavanaugh
Foster Parsons
Dorothy Cast

Mary Foss
Maria Chamberlain
Jeanette Warmuth
Constance Keating
Claudia Haacker
Ione Finch
Therese Tyler
Florence Kenyon
Jessie Hughes
Elizabeth Gerould
Adele Godchaux
Emily Jeffrey
Harry M. King
Marcia E. Van der
Veer
Dorothy B. Smith
Martha E. Hodgson
Elizabeth Naylor
Horace B. Phelps
Laura Marsh
Grace Burgess
Anne Fitzgerald
Virginia Nicholas
Marion L. Rogers
Betty Jones
Agnes H. Barnard
F. B. Fox
Helen L. Cram
Oliver F. Penniman
Blossom Davis
Jean Hoffheimer
Barbara Prosser
Josephine Smith
Margaret Tool
I. Brooks
Lillian Auld
Frederic Rich
Frances Cast
Verna M. Castleberry
Elizabeth Seward
Phillis Kirkpatrick
Dick Rathbone
Amy H. Medary
Christine M. Griggs
Emily Hamell
Isabel Bachelier
Florence Hemdt
Francis J. McGovern
Caroline M. Smith
Ansley Newman

Jane Bennett
Howard R.
Sherman, Jr.
Edward E.
Hanscom, Jr.
Edith Showers
Hazel W. Russell
Harriet Pratt
Priscilla C. Bullitt
Katharine Dimon
Mary Duckworth
Madelaine Smith
Antoinette Cook
Florence F.
Thompson
Weaver Nott
Albert E. Kantrowitz
Louise S. May
Marshall Phelps
Samuel B.
Fostenbaugh, Jr.
Alice E. Hanscom
Shelley McKnight
Muriel B. Hodge
Gerald H. Loomis
J. Elliot Cabot
Lois Long
Clarence D. Blair
Myrle Shurtleff
Mary K. Dempsey
Marion P. Easton
Gertrude Schmidt
Arletta Phillips
Mary Brigham
Albert F.
Buckhout, Jr.
Clair Rountree
Robert Osborn
Dorothy S.
Wadhams
Eleanor Hillyer
Eleanor Harrington
Alice C. Good
Muriel Zybach
Dorothy Green
Marion West
Margaret Litchfield
Oliver S. Ficher
Edith Melcher
Cornwall Spencer

FOR VERY LITTLE FOLK



HOW THE FARM FOLK RAN AWAY

BY GRACE MAY NORTH

SAID a little brown Mouse: "I think I will go
And live in a wood where boys do not grow.
SQUEAK! SQUEAK! SQUEAK!"



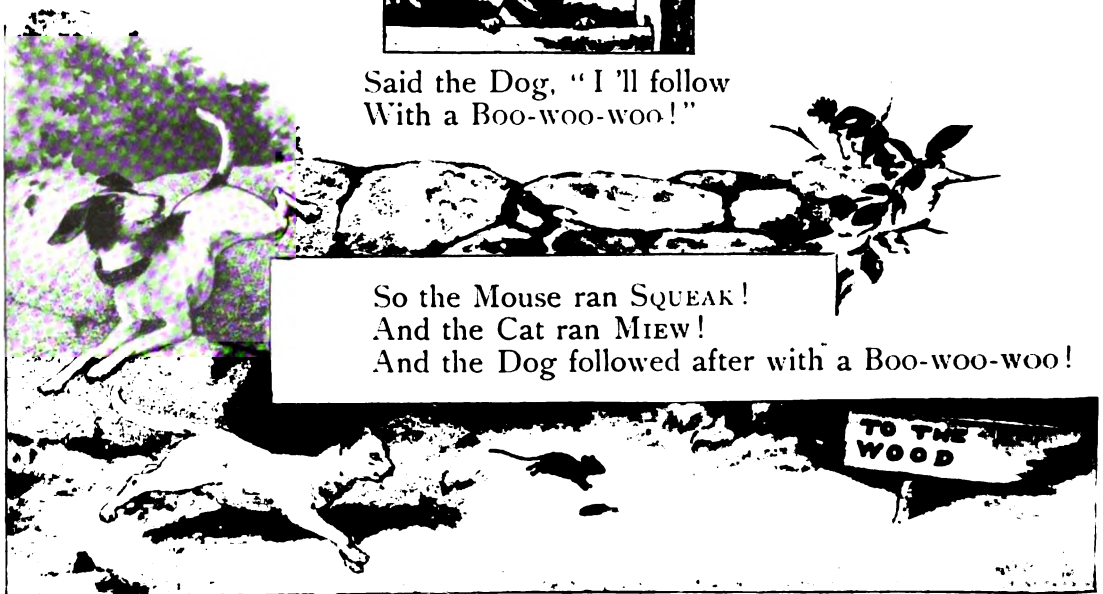
"And I'll go, too,"
Said the Cat "MIEW! MIEW!"



So the Mouse ran SQUEAK!
And the Cat ran MIEW!



Said the Dog, "I'll follow
With a Boo-woo-woo!"



So the Mouse ran SQUEAK!
And the Cat ran MIEW!
And the Dog followed after with a Boo-woo-woo!



The Cock on the fence thought, "What can it be
That is so exciting? I'll fly and see."
So down the Cock flew, and he went, too,
With a "COCK-A-DOODLE-DOO!"



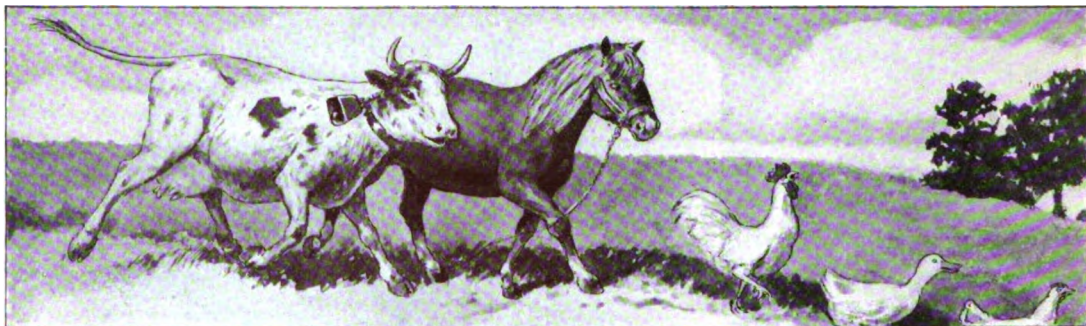
And the Mouse ran SQUEAK!
And the Cat ran MIEW!
And the Dog followed after with a Boo-woo-woo!
And the Rooster strutted with a COCK-A-DOODLE-DOO!



Then the Hen and the Duck by the barn haystack
Said, "We'll go, too. CLUCK-CLUCK! QUACK-QUACK!"

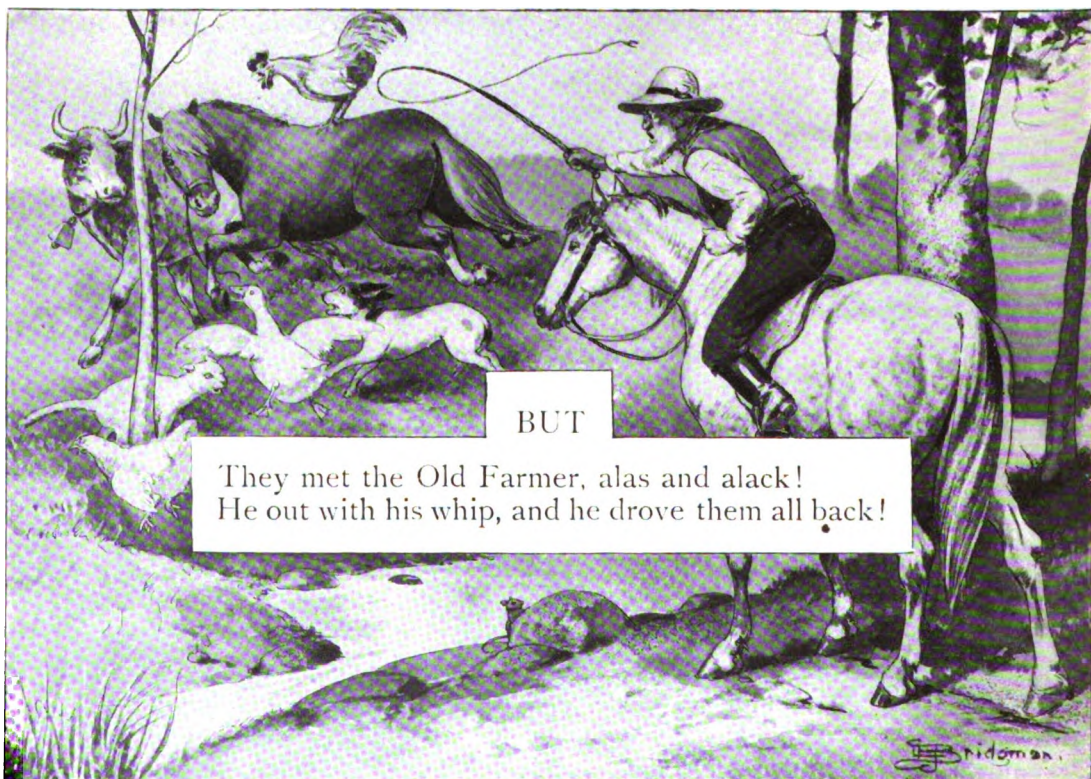
So the Mouse ran SQUEAK!
And the Cat ran MIEW!
And the Dog followed after with a Boo-woo-woo!
And the Rooster strutted with a COCK-A-DOODLE-DOO!
And the Hen CLUCKTY-CLUCK!
And the Duck QUACKTY-QUACK!





Then the Pony saw them going, and he said, "NEIGH! NEIGH!
Why, *ALL* of the Farm Folk are running away!"
"And we'll go, too," said the Cow. "Moo! Moo!"

So the Mouse ran SQUEAK!
And the Cat ran MIEW!
And the Dog followed after with a BOO-WOO-WOO!
And the Rooster strutted with a COCK-A-DOODLE-DOO!
And the Hen CLUCKTY-CLACK!
And the Duck QUACKTY-QUACK!
And the Cow Moo! Moo!
And the Pony NEIGH! NEIGH!
Just *ALL* of the Farm Folk were running away.



BUT

They met the Old Farmer, alas and alack!
He out with his whip, and he drove them all back!

THE LETTER-BOX

A CORRECTION

ST. NICHOLAS is indebted to Mrs. C. B. Nelcamp, Chairman of the Ohio State D. A. R. Committee to Prevent Desecration of the Flag, for calling attention to several errors in the item "A Giant Flag," published in our July number.

The correct dimensions of the flag made at Canton, Ohio, are 53½ by 120 feet, and its weight is 450 pounds.

Furthermore, St. Louis has a flag measuring 78 by 150 feet, although it weighs but 325 pounds. So with this city must rest the honor of owning the largest United States flag.

The names sewn into the Canton flag, Mrs. Nelcamp states, were inclosed in a waterproof bag which is placed underneath the stars, and do not show on the face of the flag, as this would violate the law.

PEMBROKE, BERMUDA.

DEAR ST. NICHOLAS: The other day I saw a letter from Bermuda in THE LETTER-BOX, so I thought that I would write to you something about Bermuda, too.

Bermuda, like all other colonies, sent a contingent of soldiers to the front. It was called the Bermuda Volunteer Rifle Corps, and was composed of Bermuda men who went bravely out to lay down their lives for England, Home, and Empire. There is now a second contingent of Bermudians here, drilling for the same purpose.

The Islands are often visited by well-known persons. Among them is Mrs. Frances Hodgson Burnett, whose stories are enjoyed by so many ST. NICHOLAS readers. President Wilson also visited Bermuda on several occasions, as did King George, Prince Albert, Mark Twain, William Dean Howells, and Kipling.

We once had Sir Frederick Kitchener, the brother of our great general Lord Kitchener, as our Lieutenant-Governor-General.

I like "The Lass of Richmond Hill" because it mentions Bermuda in it.

Your reader,

J. MARIAN WADDINGTON (age 14).

OAKLAND, CAL.

DEAR ST. NICHOLAS: I am a little girl thirteen years old. I have traveled around the world two times, but my favorite country is Scotland. I was born there. We hardly ever stay in one place more than two or three months. We are living at present in Oakland, a very pretty little town near San Francisco. We come here once a year, and a lady friend here saves the ST. NICHOLAS magazines for me. I do not read them at once, for I save them to read on the ship when I am lonely. Papa has a lovely yacht called *The Crystal*. I have no mother.

Thanking you for the many happy hours that I would have been lonely but for you, I remain,

Your sincere reader,

NANCY L. MASON.

NEW YORK CITY, N. Y.

DEAR ST. NICHOLAS: I have taken you for over three years, and I have gone over your magazines so many times that I nearly know them by heart.

Last summer we spent in the little village of Rox-

bury, New York. It is in the Catskill Mountains, which are very beautiful at that point.

One of the most interesting things we did was to visit John Burroughs' home. As you all know, he is a famous naturalist, and is also a very nice man. When we got to his little bungalow, he was not there, but after waiting five or ten minutes he came in sight. He had been out for a walk, and I shall never forget how he looked as he walked down the road. He had no coat on, an old straw hat, and for a cane he had a little branch of a tree that he had picked up on the way.

When he reached the house, he showed us many interesting things. One was his old wooden cradle, which his mother had rocked him in when he was a baby; and another was a picture of Mr. Ford and himself in the first Ford car that was ever made. It was made of wood and, if Mr. Ford will excuse this comparison, looked rather like a wheelbarrow in size.

All the furniture in the house was made by Mr. Burroughs, which of course made it very interesting.

With much love,

JOSEPHINE RUSSELL (age 11).

FORK UNION, VA.

DEAR ST. NICHOLAS: I have been taking you for two years. I enjoy reading you, and just love "The Sapphire Signet." It is so mysterious, and I like mysteries. I liked "The Lucky Stone" and "The Lost Prince."

My little sister likes "The Wonder-box" stories, and I read them sometimes.

Wishing you could exist forever,

Your delighted reader,

PENN KENNEDY (age 11).

SOUTH ORANGE, N. J.

DEAR ST. NICHOLAS: I have taken you for almost six years, and think you are the best magazine I ever heard of.

Yesterday I caught a bird; it flew down the chimney in my mother's room.

I like the "Pet Department" very much indeed, and I may get a cat from one of the places you mentioned.

My favorite stories are "Saved by a Camera," "The Sapphire Signet," and all the rest.

There is always a scramble for you when you come, but I almost always get you first, as my brother does not get home from school till later in the day.

Your loving reader,

EDITH BARTOW (age 10).

BOZEMAN, MONT.

DEAR ST. NICHOLAS: My sister and I have taken you for nearly three years, and we like you very much. My mother used to take you when she was a little girl, and we have some bound volumes of you. We had the play "Everychild" last June in my aunt's third floor. My cousins got us several little pine-trees, and we had some garden furniture on a little place we fixed for the stage. We had little printed programs, and we made five dollars. We used it at Christmas time to get a box for a poor family.

In the ST. NICHOLAS LEAGUE a few years ago there was a story about Maiden Rock. It is in Bridger Cañon, a few miles from here, and we often go just under it for picnics. It is often called the Devil's Toothpick. I am in the eighth grade and I have an English teacher I am very fond of. She wrote a book called

"The Girl from the Bighorn Country," and it is just out.

My favorite story was "The Boarded-up House," and I was also sorry to have "Peg o' the Ring" and "The Lost Prince" end. "The Sapphire Signet" is very interesting, too. I always read THE LETTER-BOX.

Your interested reader,

MARGARET PATTEN (age 13).

HAMLET, N. C.

DEAR ST. NICHOLAS: I live in the "Land of the Long-leaved Pine." I never have seen any letters from this part of North Carolina.

I am sending you a picture of my little brother, taken with a real live opossum in his arms.

I am very much interested in the letters from foreign children, and I always hunt up the places where they live on the map. I like all of the ST. NICHOLAS stories, especially "The Sapphire Signet"; but my mother's favorite is "The Land of Mystery." I am trying to keep my copies of ST. NICHOLAS, but my little brothers have nearly worn them out looking at them over and over.

Your interested reader,
MARGARET TERRY
(age 11).



HOLLYWOOD, CAL.

DEAR ST. NICHOLAS: I was very glad to get my silver badge, but now that my gold badge has come I am too pleased for words.

It may be of interest if I tell about the great outdoor performance of "Julius Cæsar" held here recently in honor of the Shaksperian Tercentenary for the Actors' Fund of America. It was given in a natural amphitheater in the hills. The stage was the Roman forum with Brutus's garden, Pompey's theater, a Roman street, the senate, and Cæsar's house grouped about in the background. Above to the left, as you faced the stage, was the Capitoline Hill, surmounted by the Temple of Jupiter. Toward the right from there were: the arena, where the gladiatorial contests swayed the mob, the camp of Brutus and Cassius (on another hill), and, on the farther ridge, Antony's and Octavius's forces awaiting the battle of Philippi in the last act. The stage scenery was all knocked down, and the scene set for Brutus's camp and a part of the battle-field in the last two acts.

All the actors and actresses were the best obtainable. Theodore Roberts was "Julius Cæsar," Constance Crawley, "Calpurnia," Tyrone Power was "Brutus," Sarah Truax, "Portia," De Wolf Hopper, "Casca," Frank Keenan, "Cassius," William Farnum, "Marc Antony," and so on, every one having a speaking part, and even those who led the mob were well-known actors. What

else could it be, therefore, but a splendid triumph of Shaksperian art!

Many extra incidents were added to the original play, such as the procession of Cleopatra across the stage in all her splendor, the chanting column of priests led by the high priestess, the barbaric dancers, the beautiful ballet, the gladiatorial games, the offering of the crown to Cæsar, and the battle of Philippi. In this latter scene the soldiers were silhouetted against magnesium lights as they fought, and they burned the camp of Brutus and Cassius.

Light was afforded by large search-lights which spotted out the scenes of action.

About twenty-five thousand people attended, and their autos lined the streets for a mile, four deep.

Although there were some discomforts and inconveniences, yet it was a marvelous spectacle, and one worthy of recognition and remembrance.

Your loyal friend,

ESTHER J. LOWELL (age 15).

CORNING, N. Y.

DEAR ST. NICHOLAS: This makes the sixth year I have enjoyed you every month: and when the June number arrived at the library with THE LETTER-BOX brimming over with interesting letters from far and near, I decided it was high time I, too, wrote to thank you for the many cozy hours you have given me. Rainy days are sunshiny ones to me when I can curl up in some comfortable corner with a pillow at my back, a dish of rosy apples within easy reach, and, best of all, the latest copy of ST. NICHOLAS opened on my lap. Blissful thought!

Are n't the continued stories by Augusta H. Seaman just the best ever! I can hardly wait each month to see how that jolly Antiquarian Club is getting on with its discoveries; and oh, those tantalizing last sentences! I certainly *very heartily* agree with Eleanor and Helen Holmes, and a dozen more, whose interesting letters I have seen in THE LETTER-BOX, that those abrupt endings drive one wild! A story would n't be half as much fun, though, without just a few words at the end to set us thinking until the next ST. NICHOLAS comes!

I am very much interested in THE LETTER-BOX, especially those letters from such places as Japan, Alaska, Russia, and even California, places I have often read about, but never seen.

Wishing you luck, I remain,

Yours truly, DAHRIS MARTIN.

DANVILLE, IND.

DEAR ST. NICHOLAS: I am going to tell you about my visit to James Whitcomb Riley, our "Hoosier Poet."

I was invited to a house-party at our governor's a year or two ago, with about twenty-four other girls, in honor of their daughter's birthday. The first day was spent at Brookside Park. The next morning it was arranged that we should see Riley.

We all piled into three autos and drove to Lockerbie Street, stopping at the florist's to get some flowers. At Riley's home we were first received by the housekeeper. After presenting the poet with the flowers, we were all introduced to him. He had something to say to each one of us. As a souvenir of the visit, Riley presented us with an autographed copy of "Out to Old Aunt Mary's."

He then came out on the porch, and as most of us had cameras, we got some pictures of him. Riley said to be sure and get the dog.

Sincerely,

MARY MARGUERITE DOUGAN (age 13).

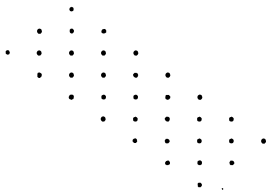
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ILLUSTRATED NUMERICAL ENIGMA

IN this numerical enigma the words are pictured instead of described. The answer, consisting of fifty-two letters, is a quotation from "Proverbs."

OBLIQUE RECTANGLE



IN solving, follow the above diagram, though the puzzle has twenty-one cross-words.

CROSS-WORDS (beginning with the upper single letter): 1. In foes. 2. The native form of a metal. 3. Up-right. 4. Applause. 5. A small wax candle. 6. Doctrine. 7. Royal. 8. Stories. 9. Holes that let in water. 10. To slide. 11. Condition. 12. Air. 13. Uncanny. 14. Inflexible. 15. A sea duck. 16. To restrain. 17. A fortification. 18. A bird. 19. A beverage. 20. A person devoted to a religious life. 21. In foes.

FLORENCE E. WALLACE (age 15), *League Member*.

COMBINATION PUZZLE

ALL the words in this puzzle contain the same number of letters. When rightly guessed and written one below another, the primals will spell the name of a fabulous creature; the diagonals, from the upper, left-hand letter to the lower, right-hand letter, will spell the name of a city of the United States.

CROSS-WORDS: 1. Peril. 2. To lessen. 3. Reckoned by the year. 4. A mixture of small pebbles and sand. 5. A common bivalve. 6. The drink of the gods.

WILLARD B. CROSBY (age 14), *League Member*.

A DROP-LETTER PUZZLE

EXAMPLE: Drop a letter from to fasten, and leave part of the face. Answer: ch-a-in, chin.

1. Drop a letter from a resinous substance, and leave a common, combustible substance. 2. Drop a letter from a dwelling, and leave a flexible pipe. 3. Drop a letter from habitations, and leave garden tools. 4. Drop a letter from wind instruments, and leave articles of food. 5. Drop a letter from fancied, and leave told an untruth. 6. Drop a letter from to color, and leave to gasp. 7. Drop a letter from small bodies of water, and leave the capsules of a plant. 8. Drop a letter from hurry, and leave enmity. 9. Drop a letter from listened, and leave a rabble. 10. Drop a letter from a

giver, and leave an entrance. 11. Drop a letter from pertaining to the feet, and leave to resound. 12. Drop a letter from floats, and leave certain rodents. 13. Drop a letter from a measure of weight, and leave a small lake. 14. Drop a letter from a spear, and leave a filmy fabric.

The fourteen dropped letters will spell certain seasonable delights.

VERNA PEACOCK (age 17), *League Member*.

DOUBLE ACROSTIC

My primals and my finals each name a holiday.

CROSS-WORDS: 1. A building set apart for religious worship. 2. The commercial center of the West Indies. 3. A scamp. 4. A name given to Jacob after successfully wrestling with the angel. 5. The workroom of an artist. 6. The fat of certain animals. 7. A loose overgarment. 8. To charge. 9. A division of the year.

MOREAU CROSBY (age 12), *League Member*.

A KING'S MOVE PUZZLE

(Gold Badge. Silver Badge won November, 1915)

1	2	3	4	5	6	7	8
S	E	T	O	R	E	S	E
9	10	11	12	13	14	15	16
U	H	R	D	I	P	N	X
17	18	19	20	21	22	23	24
I	A	P	T	P	R	I	E
25	26	27	28	29	30	31	32
P	T	O	A	I	A	L	P
33	34	35	36	37	38	39	40
O	R	C	P	S	E	S	O
41	42	43	44	45	46	47	48
O	L	K	U	I	O	L	C
49	50	51	52	53	54	55	56
N	S	P	P	R	H	P	I
57	58	59	60	61	62	63	64
U	I	E	T	C	U	R	E

BEGIN at a certain square and move to an adjoining square (as in the king's move in chess), until each square has been entered once. When the moves have been rightly made, nine names made famous by a great writer may be spelled out. The path from one letter to another is continuous.

LEONA FASSETT (age 17).



Open Car Freedom—Closed Car Luxury Combined—at Moderate Prices

These two new Overlands are the first full size Touring Sedans ever offered to the public at moderate prices.

Such cars at such prices are possible only because of the economies made possible by our production of 1000 cars a day.

And they fill a long felt want.

Undoubtedly the car that is both an open touring car and a closed sedan, easily convertible on the instant, is the ideal family car for year-round, every-purpose use.

Such cars at \$1195 for the four and \$1325 for the six—both roomy five passenger cars—are heretofore unheard of values.

When closed these cars afford perfect protection against cold, wind, rain or snow.

When open they are free to every friendly breeze that blows.

The change can be made either way easily and quickly and with no more effort than it takes to raise or lower the windows.

And, either open or closed, these cars are beautiful in appearance—have lots of style—are absolutely free from the suggestion of makeshift which is so apparent in separate sedan tops for touring cars.

But there are many other features to commend these cars, in addition to their perfect convertibility.

The four has the 35 horsepower motor which has made the Overland famous for years—in its latest improved en bloc type.

The six has a 40 horsepower en bloc motor with wonderful flexibility and lightning pick-up.

Cantilever rear springs make both cars remarkable for their easy riding qualities.

And long wheelbase—the four 112 inches, the six 116 inches—and 4½ inch tires add further to their riding comfort.

See these new cars at once.























You will be amazed that such beautifully finished, luxurious Touring Sedans can be built to sell at such low prices.









See the Overland dealer before it is too late to get an early delivery.





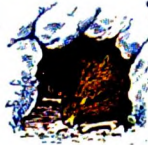

















Catalogue on request. Please address Dept. 778.

The Willys-Overland Company, Toledo, Ohio

"Made in U. S. A."

There was once a little  named  ry. He was a n  little boy but he did  th  very much. He said that  and  who  their  are  simply  to  other so much. But one  day morning he woke up with a swollen  and a -ache. My! how he  ed and cried. When the Doctor came and  ry's face he said: "A-ha!  see, here is a  who does  brush his  . No 1der they ache."

"W  shall  do?" asked  ry. Just after the Doctor  a little  hopped in at the  and said: "U should  your  every day with

         ry thought this was good advice. He got  and found the cream tasted as nice as  dy. He was sur  d  cause he supposed a dentifrice al- ways tasted like . After he used it for half a y  he went to the dentist who found his  were clean and white and there was very little work 2do. He told  ry that    is a  dentifrice and a good 1, 2. Now  ry uses it twice a day and knooooo the meaning of

GOOD TEETH-GOOD HEALTH

AFTER you have puzzled out little Henry's adventures with Colgate's Ribbon Dental Cream send us your answer. If correct we will

mail you free a generous trial tube of this safe and delicious dentifrice. Your letter must be mailed before November 15, 1916, addressed to

COLGATE & CO., Dept. 60, 199 Fulton St., New York
Makers of Cashmere Bouquet Soap, luxurious, lasting, refined. New size at 10c. a cake

